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Capital Improvement Program

FY98-00

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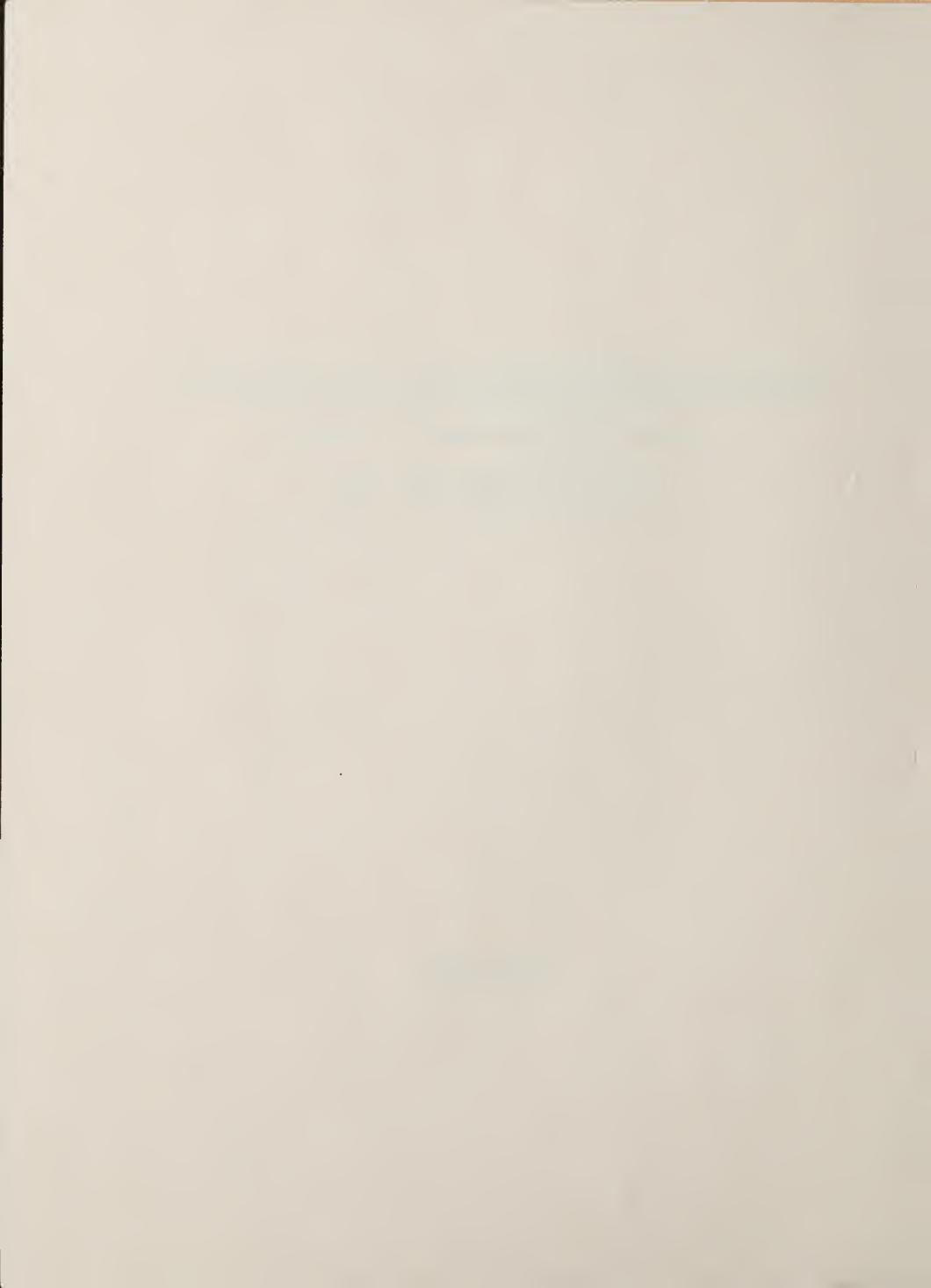
MASSACHUSETTS WATER RESOURCES AUTHORITY

MASSACHUSETTS WATER RESOURCES AUTHORITY

CAPITAL IMPROVEMENT PROGRAM

FISCAL YEARS 1998 - 2000

October 1997



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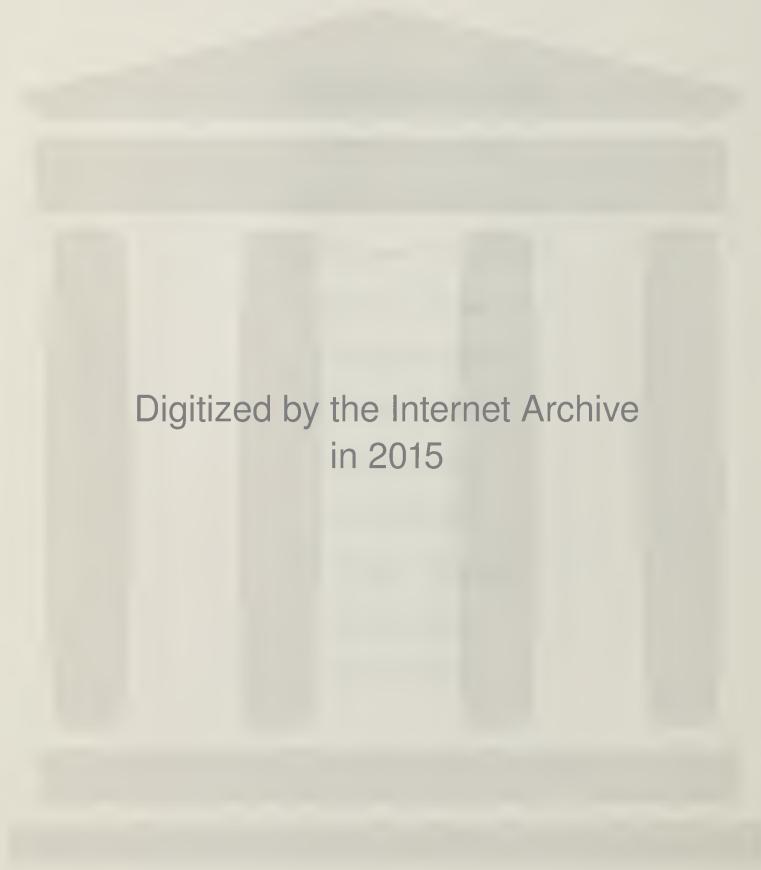
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October 20, 1997

Joseph C. Foti, Chairman
MWRA Advisory Board
11 Beacon Street
Boston, MA 02108

Dear Chairman Foti and Advisory Board Members:

This letter transmits to the Advisory Board MWRA's Capital Improvement Program (CIP) for fiscal years 1998 to 2000. While the CIP includes several new capital initiatives, there are no significant shifts in policy direction or in the projected flow and volume of capital spending over the next ten years compared to the FY97-99 CIP. The MWRA Board of Directors adopted this budget on June 25, 1997, prior to the start of the new fiscal year on July 1.

The CIP forecasts annual capital spending for FY98 through FY07 and beyond, and MWRA uses the financial information it provides in the formulation of rates and charges to user communities. Capital projects in the CIP support MWRA's mission to provide reliable, cost-effective, high quality water and sewer services.

The FY98-00 CIP includes 99 projects comprised of more than 760 project phases. It provides a three-year budget of \$1.4 billion and a ten-year budget \$3.0 billion for capital improvements to the wastewater and waterworks systems.

The enclosed FY98-00 CIP Budget Document includes an Executive Summary which presents an overview of 100-year actual and planned spending for wastewater and waterworks improvements, anticipated capital spending for the next ten years by program area, anticipated grant revenue and capital funding requirements needed to support the capital program, and the impact of operating new facilities on the Current Expense Budget. The remainder of the budget document presents budget summaries for each project and detailed expenditure forecasts.

Also enclosed is a separate document, a CIP projects binder, which includes detailed descriptions of the projects including project purpose, background and history, maps, and descriptions of the scope of each project subphase (contract). This binder will be updated on an annual basis and distributed with the final budget document each year.

Highlights of the FY98-00 Capital Improvement Program

- **Commitment to Improving Boston Harbor Water Quality by Completing the Boston Harbor Project.**

MWRA has expended more than \$2.8 billion on the Boston Harbor Project to date,

with FY94 marking the peak year of construction spending. Another \$483 million is required from FY98 through FY01 to successfully complete and begin full operation of all components of the project. Completion of BHP's final major milestone, the last secondary treatment battery, is scheduled for December 1999 (FY00).

- ▶ **Commitment to Delivering Safe and Healthful Drinking Water.**
The FY98-00 CIP marks the initial years of shifting MWRA capital resources from the construction of primary and secondary wastewater treatment facilities to the design and construction of facilities that supply, transmit, and protect drinking water. This includes construction of the MetroWest Tunnel, Norumbega and other covered storage facilities, and the Walnut Hill Water Treatment Plant. In FY00, Waterworks expenditures will surpass Wastewater expenditures as a percentage of total MWRA capital spending.
- ▶ **Commitment to Rehabilitating and Maintaining Existing Assets.**
MWRA has invested more than \$3 billion to date in the construction of new facilities and the rehabilitation of existing systems. As our organizational focus shifts from construction of new facilities to operational efficiency, reinvestment in and maintenance of existing assets becomes an ever increasing priority. Pipeline, pump station, and other facilities improvements comprise 25% of the ten year capital budget.
- Waterworks pipeline projects included in the CIP are projected to provide more than 50 miles of new and rehabilitated pipe to the waterworks system between FY98 and FY02. Wastewater interception and pumping projects are projected to add 3.5 miles of newly constructed interceptors and 10.9 miles of rehabilitated interceptors between FY98 and FY02.
- ▶ **Commitment to Limiting Storm Induced Overflows and Eliminating CSO discharges.**
Increases in the CSO budget, based on revised estimates for hazardous materials removal and tunnel construction, reflect progress made in site selection and design for long-term CSO control plan projects. The portfolio of local sewer improvement projects included in the CSO System Optimization Program is scheduled for completion in FY00.

FY98-07 Summary

The CIP includes a ten-year capital budget (FY98-07) of \$2.97 billion, compared to \$3.09 in the FY97-99 CIP for FY97-06. The decrease in the ten-year budget is primarily the result of one less year of Boston Harbor Project spending (the FY97 BHP budget was \$241.5 million), offset by increases described below and \$60.5 million in projected spending for FY07.

Total project costs, which include all prior expenditures for active CIP projects through the end of FY97, increase \$246.2 million compared to the FY97-99 CIP. This change is primarily comprised of increases in the budgets for BHP (\$90 million), CSOs (\$89 million), eight new projects (\$19

million), and the Walnut Hill Water Treatment Plant (\$17 million).

Projected Annual Spending for Fiscal Years 98-00

The FY98-00 CIP provides for an estimated \$1.41 billion in capital spending for fiscal year 1998 through fiscal year 2000. This compares to \$1.25 billion for the same fiscal years in the FY97-99 CIP. Annual capital spending projections increase by \$58 million for FY98 (13%) and by \$98 million for FY99 (25%) primarily as a result of increases in the BHP and CSO budgets.

Wastewater spending increases \$24 million during FY98-00 primarily as a result of increases in the CSO budget. BHP spending increases \$94 million during FY98-00 primarily as a result of change order activity on eight of the largest active contracts (\$30 million), the award of the Secondary Battery C construction contract (\$20.3 million), deferred spending from the previous year (\$12 million), and increases for the Inter-Island Tunnel (\$8.3 million) and the Nut Island Headworks (\$7.8 million). Waterworks projected annual spending for this period is unchanged from the FY97-99 budget.

The Future

MWRA remains committed to its mission to provide high quality, cost-effective water and sewer service to its customers. To this end, we continue to seek new cost saving measures to assure that every capital project is completed in the most cost-effective manner, and will continue to work to improve project cost and schedule accountability.

We appreciate the Advisory Board's efforts to assist us in preparing the most effective and responsible capital program which meets the service needs of our rate payers, while managing the rate impacts of our essential capital program. We look forward to your continuing input as we begin developing the proposed FY99-01 CIP.

Sincerely,

A handwritten signature in black ink that reads "Douglas MacDonald (TP)". The signature is fluid and cursive, with "Douglas" and "MacDonald" being the most prominent parts, and "(TP)" in smaller letters at the end.

Douglas B. MacDonald
Executive Director

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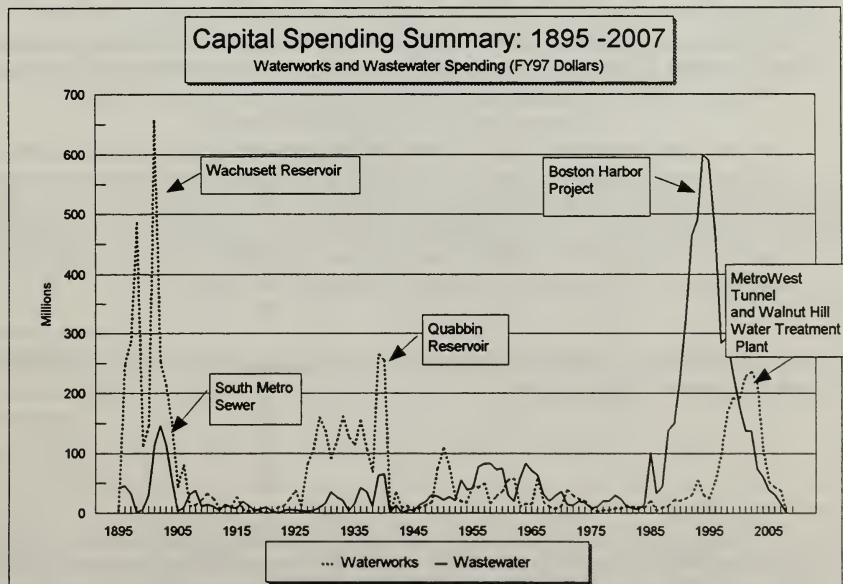
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EXECUTIVE SUMMARY

MWRA has completed approximately half of its planned improvements to major components of its wastewater and waterworks treatment, interceptor, pumping and distribution systems. For the 21 year period 1985-2007, MWRA is projected to spend \$6.8 billion, nearly 70 percent of which will support improvements to the wastewater treatment and interceptor system. This extensive investment reflects both the very low levels of capital investment in the 20 years prior to MWRA's creation, and the need on a periodic basis to make major improvements to the system.¹

MWRA customers today continue to enjoy the benefit of many of the capital projects implemented as far back as the 1890s, such as the development of the Wachusett Reservoir which continues to provide a vital link in the waterworks supply and distribution system. In terms of the magnitude of capital spending, time adjusted peak spending for Wachusett Reservoir exceeded peak spending for the Boston Harbor Project, and the \$1.7 billion expended during the 13 year period 1927 to 1939 for development of the Quabbin Reservoir, Quabbin Aqueduct, Norumbega Reservoir, and Hultman Aqueduct approximates the actual and planned level of \$1.6 billion in investment for the Waterworks program for the 13 year period 1995 to 2007 for the MetroWest Tunnel, the Walnut Hill and Quabbin Water Treatment Plants, six covered storage facilities, and numerous distribution and pumping projects.



¹ MWRA's predecessors, the Commonwealth of Massachusetts' Metropolitan District Commission (MDC) and the Metropolitan District Water Supply Commission (MDWSC), were responsible for pre-1985 expenditures.

The FY98-00 Capital Improvement Program

This Capital Improvement Program (CIP) presents plans for capital investment in 99 projects at an estimated cost of \$1.4 billion for FY98-00.²

Highlights of the FY98-00 Capital Improvement Program

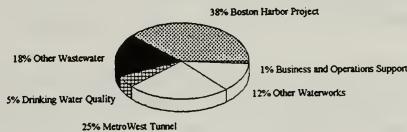
- ▶ The CIP presents no significant shifts in planned capital expenditures or priorities from the FY97-99 CIP.
- ▶ The Boston Harbor Project's last major milestone, completion of the last secondary treatment battery, is scheduled for completion in December 1999 (FY00). As of June 30, 1997, the project had achieved physical progress of 90.5 percent.
- ▶ The FY98-00 period includes the first years of significant construction for the major waterworks projects designed to improve supply, transmission, and protection of drinking water. In FY99, Waterworks capital spending will exceed BHP spending.
- ▶ The Combined Sewer Overflow (CSO) program closes out its planning phase, and five of nine MWRA-managed and all seven community-managed projects will be in design in FY98. For the period FY98-00, almost \$100 million is budgeted for CSO improvements.
- ▶ The Braintree-Weymouth Relief Facilities project includes \$157 million for wastewater improvements to reduce community infiltration and inflow and provide capacity for peak flows in Braintree, Hingham, Holbrook, Randolph, Weymouth, and sections of Quincy.³
- ▶ Ten-year planned spending includes infrastructure investment of \$334 million for waterworks distribution and pumping projects and \$243 million for wastewater interception and pumping projects.
- ▶ The CIP includes \$19.2 million for new projects, including \$15.5 million for design and construction of an on-site sodium hypochlorite plant at Deer Island.

The pie charts on the next page illustrate the shift in capital spending from the Boston Harbor Project to the Waterworks capital program.

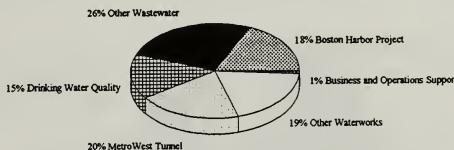
²The FY98-00 CIP budget is stated in December 1997 dollars, including estimates for future project phases (unawarded contracts) which have been inflated by 2.92 percent to bring their value from a December 1996 benchmark to a December 1997 benchmark. Budget estimates in this CIP document do not include inflation beyond December 1997.

³One component of the project, a pipeline to carry Deer Island Treatment Plant sludge from Nut Island to the Fore River Pelletizing Plant, was proceeding on dual track (marine pipeline or tunnel) at the time this budget was prepared. In October 1997, the Board of Directors approved the deep rock tunnel option.

Percentage of Projected 3-Year Capital Spending
FY1998-FY2000



Percentage of Projected 10-Year Capital Spending
FY1998-FY2007



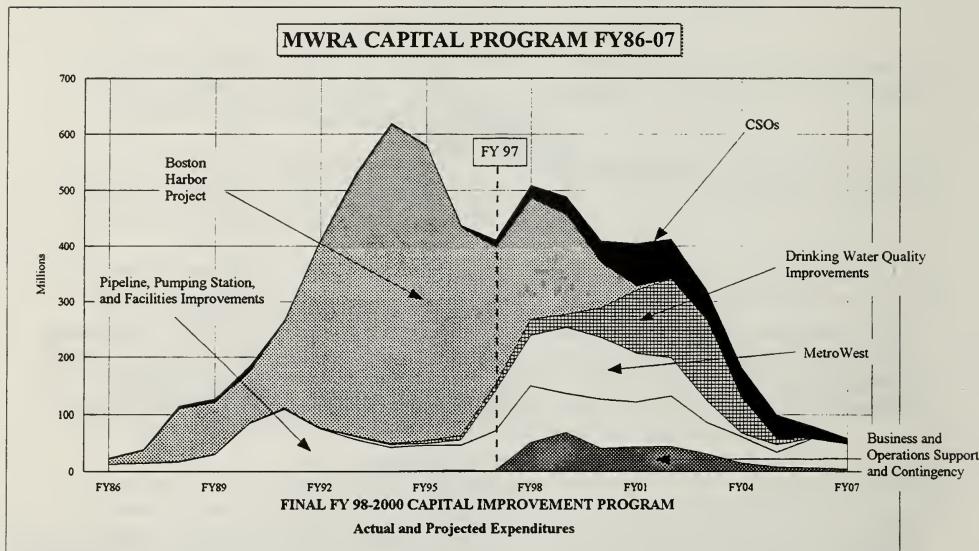
MWRA has already undertaken substantial work on many of the projects in the CIP, as authorized in prior capital budgets, and anticipates that all projects included in this document will begin by FY06. Estimated expenditures on all projects from MWRA's inception in 1985 through the end of FY97 are \$3.8 billion.⁴ The total projected capital investment for the ten-year period FY98-07 is \$3 billion.

**Projected Expenditures by Program Area
(in millions)**

Capital Program Area	FY 98	FY 99	FY 00	FY 98-00 Total	FY 01-2007	10-Year Total
Boston Harbor Project	\$217.6	\$178.1	\$80.4	\$476.0	\$7.0	\$483.1
Wastewater System Improvements	\$74.0	\$52.7	\$96.1	\$222.8	\$482.8	\$705.6
Waterworks System Improvements	\$166.0	\$188.6	\$190.9	\$545.4	\$919.3	\$1,464.7
Business and Operations Support	\$2.9	\$6.5	\$2.8	\$12.2	\$13.5	\$25.7
Contingency	\$48.8	\$62.9	\$39.3	\$151.1	\$142.3	\$293.4
TOTAL	\$509.3	\$488.7	\$409.5	\$1,407.5	\$1,564.9	\$2,972.4

⁴Includes approximately \$300 million in completed projects which are no longer included in the CIP budget totals. See the FY98-00 CIP projects binder for a detailed list of these projects.

As illustrated below, peak spending for the Boston Harbor Project occurred in FY94. Peak spending for the MetroWest Tunnel is expected to occur in FY99, for CSOs in FY01, and for the Walnut Hill Water Treatment Plant in FY02.



New Projects

The CIP includes eight new **wastewater** projects at a cost of \$19.1 million:

- ▶ On-Site Sodium Hypochlorite Plant, a \$15.5 million project scheduled for completion in June 2000, will generate sodium hypochlorite needed for disinfection and odor control on Deer Island, potentially saving MWRA millions in operating costs over its 15-year useful life.
- ▶ Deer Island As Needed Design/Construction Services/Resident Inspection, a \$500,000 program starting in July 1998, will provide Deer Island Treatment Plant (DITP) staff with as needed design and resident inspection services in support of construction.
- ▶ Deer Island Construction Services Contracts (CSCs) will support \$1.5 million in as-needed construction services managed by the Sewerage Division to ensure a safe and efficient transition to full operation of the Deer Island plant.
- ▶ Deer Island Coastal Protection will restore Deer Island's shoreline from the effects of construction or erosion in the event it is required. Contingency funds will be used to provide budget authorization during the fiscal year if needed.
- ▶ Deer Island Plant-Wide Systems, a \$250,000 project scheduled for completion in FY99, will implement a plant-wide computerized system to allow plant engineers to more efficiently facilitate the repair and maintenance of mechanical systems.
- ▶ Clinton Landfill Liner Repair, a \$400,000 project scheduled for completion in FY98, will repair the sludge landfill liner of Basin 1 at the Clinton Treatment Plant, if required by the Massachusetts Department of Environmental Protection.
- ▶ Wastewater Central Monitoring will study the feasibility of automating components of the wastewater transport system monitoring and controlling operations from a central location. \$600,000 is budgeted for a study to document existing conditions of transport facilities, assess monitoring and communications technology, and recommend a cost-effective implementation approach.
- ▶ West Roxbury Tunnel will study the condition of the sewer which transports flows from the Wellesley Extension Relief Sewer through the West Roxbury portion of Boston to the High Level Sewer. \$323,000 is budgeted for inspection and an engineering report which will recommend alternatives for rehabilitation and provide cost estimates.

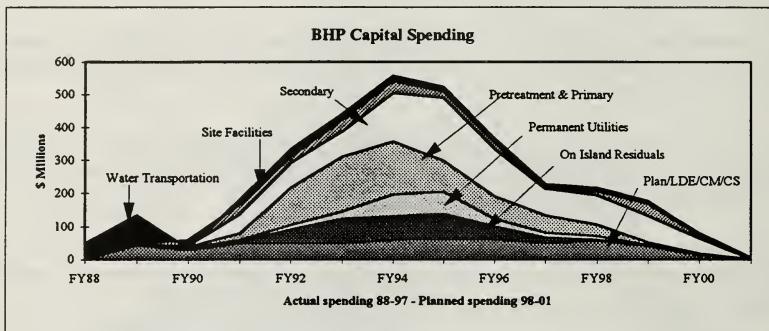
The CIP includes one new **waterworks** project:

- ▶ The Winsor Dam Hydroelectric project will restore a facility in Belchertown to generate electricity to potentially meet the needs of other MWRA facilities in the area. \$85,000 has been budgeted for preliminary permit studies, licensing, and design.

CAPITAL PROGRAM AREA SUMMARIES

Boston Harbor Project

The Boston Harbor Project (BHP) program is comprised of two CIP projects: Deer Island Primary and Secondary Treatment and Water Transportation. These two projects, which are managed by the Program Management Division (PMD), include more than 130 active professional service and construction contracts necessary to implement the \$3.4 billion program. Through June 30, 1997, 90.5 percent of construction had been completed.



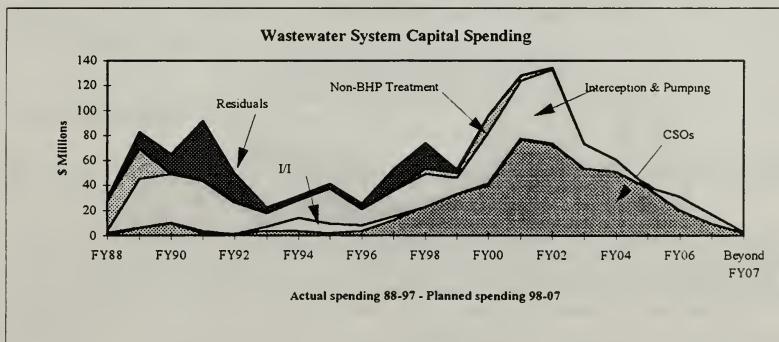
Remaining key milestones include:

- ▶ Commence operation of Secondary Treatment Battery A in August 1997, and Secondary Battery B in October 1997.
- ▶ Complete all facilities necessary to transport and treat south flow by November 1997, including the Inter-Island Tunnel (included in the Pretreatment and Primary phase), South System Pump Station, and the Nut Island Headworks.
- ▶ Complete the Effluent Outfall Tunnel (included in the Secondary phase) by November 1998.
- ▶ Award the remaining large construction contracts in FY98: Western Shoreline Protection (scheduled for completion December 1999) and Final Paving and Site Completion (scheduled for completion June 2000).
- ▶ Commence operation of Secondary Battery C by December 1999.

Wastewater System Improvements

The wastewater program area consists of 44 projects managed by the Sewerage Division in the five program categories presented below.

Wastewater Program Categories	FY98	FY99	FY00	FY 98-00 Total	FY 01-2007	10-Year Total
Interception and Pumping	\$26.4	\$12.9	\$41.3	\$80.6	\$154.9	\$242.8
Treatment (Non-BHP)	\$3.8	\$3.9	\$13.5	\$21.2	\$4.9	\$26.1
CSOs	\$23.5	\$33.3	\$39.8	\$96.6	\$31.4	\$430.7
Residuals	\$21.0	\$3.1	\$0.0	\$24.1	\$0.6	\$24.7
I/I (Grants, loans, and repayments)	(\$0.8)	(\$0.4)	\$1.5	\$0.3	(\$9.0)	(\$9.2)
Total:	\$74.0	\$52.7	\$96.1	\$222.8	\$482.8	\$715.1

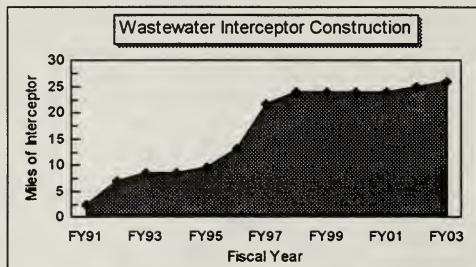


Interception and Pumping

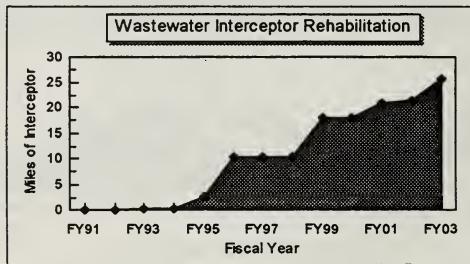
A key aspect of MWRA's goal to provide adequate system capacity and reliable service is the interception and pumping program category, which is comprised of 16 projects whose purpose is to construct new and rehabilitate existing interceptors and pump stations. The average age of MWRA sewer pipes is 75 years, with some pipes older than 160 years. The Sewerage Division is committed to constructing an additional two miles of new interceptor and rehabilitating seven miles of existing interceptor by FY02. The most significant project is the \$157 million Braintree-Weymouth Relief Facilities project which when completed in FY04 will reduce community infiltration and inflow and provide capacity for peak flows in Braintree, Hingham, Holbrook, Randolph, Weymouth, and sections of Quincy. Other major projects include Quincy Pump Facilities (\$20 million), and Framingham Extension Relief Sewer (\$47.4 million). Two other projects are almost complete: the \$31.4 million New Neponset Valley Relief Sewer, and the \$72.5 million Wellesley Extension Replacement Sewer.

Approximately \$38 million in the above project costs is budgeted for five new pump stations. Three are in the Quincy Pump Facilities project: Squantum, Hough's Neck, and Quincy; and two are in the Braintree-Weymouth Relief Facilities project: North Weymouth and Braintree-Weymouth.

Actual and Projected Miles of Newly Constructed Interceptor



Actual and Projected Miles of Rehabilitated Interceptor



Wastewater Treatment

As more DITP facilities become operational, responsibility for capital improvements not directly related to initial start-up will be managed by the Sewerage Division. This CIP includes five new capital projects for DITP, and the transfer of one existing BHP project (Dry Storage Warehouse) to the treatment program category managed by the Sewerage Division.

CSOs

For the first time, the CIP includes discrete budgets for design and construction subphases for all CSO projects. This reflects the success of the environmental, community, and facilities planning process as the overall program achieves regulatory approvals and moves from planning to design. The CSO Final Facilities Plan and EIR were completed in July 1997, and five additional MWRA- and community-managed projects will begin design in FY98:

- North Dorchester Bay and Reserved Channel Consolidation Conduits and Pumping Facility (\$146.6 million),
- Cambridge and Charlestown Hydraulic Relief (\$3.5 million),
- Boston Interception Connection (\$1.2 million),
- Chelsea Trunk and Branch Sewer Relief and Outfall Improvements (\$28.9 million), and
- BWSC Floatables Control (\$1.1 million).

Residuals Management

\$42.3 million in plant expansion and other improvements at the existing pelletizing plant at Fore River are underway. Completion of Pier 2 rehabilitation, and additional rail tracks and pellet silos (Outside Construction) is scheduled for March 1998, and the completion of two new pelletizing trains and modifications to the four existing trains (Inside Construction) is scheduled for June 1999.

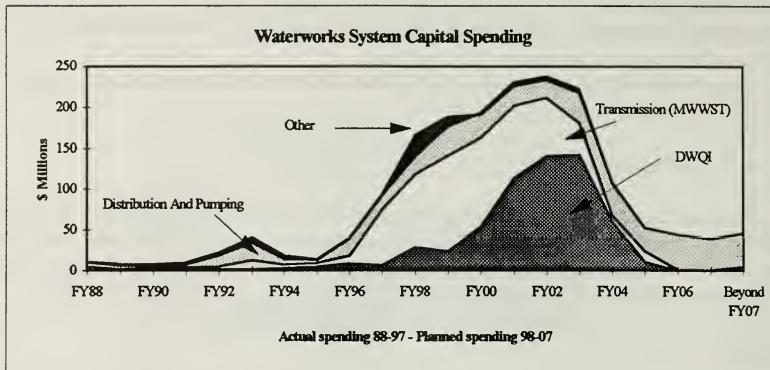
I/I Program

The Infiltration/Inflow Financial Assistance Program (I/I) distributed \$7.3 million in grant and loan funds to 18 different communities in FY97, bringing the total distribution since the program's inception in FY93 to \$34.9 million. Distribution of grants and loans will continue through June 2005, with community repayments complete by June 2010.

Waterworks System Improvements

The waterworks program area consists of 49 projects managed by the Waterworks Division in the four program categories presented below.

Waterworks Program Categories	FY98	FY99	FY00	FY 98-00 Total	FY 01-2007	10-Year Total
Drinking Water Quality Improvements	\$28.4	\$23.7	\$53.6	\$105.7	\$468.5	\$574.2
Transmission	\$90.3	\$117.6	\$109.6	\$317.5	\$219.6	\$537.1
Distribution and Pumping	\$22.6	\$35.3	\$30.0	\$87.9	\$246.1	\$334.0
Other	\$24.7	\$11.9	(\$2.3)	\$34.4	(\$15.0)	\$19.4
Total:	\$165.9	\$188.6	\$190.9	\$545.4	\$919.3	\$1,464.7



Drinking Water Quality Improvements

This program category includes \$411.8 million for the Walnut Hill Water Treatment Plant (WTP) and \$175.2 million for five covered storage facility projects designed to treat and protect drinking water in the MWRA system. The CIP includes a budget for construction of the filtration option for the Walnut Hill WTP, and depending on the outcome of an environmental review process and negotiations with regulatory agencies, may be reduced significantly if chlorination or ozonation options are deemed acceptable as effective first steps in a phased approach to water treatment.

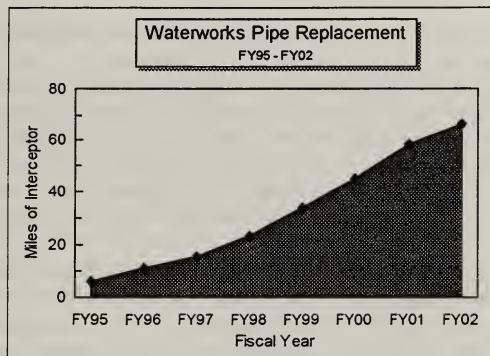
Transmission

Construction of the \$623 million MetroWest Water Supply Tunnel to replace the aging Hultman Aqueduct is underway and scheduled for completion in April 2003. This project combined with the Walnut Hill Water Treatment Plant and additional covered storage facilities comprise the core elements of a long-term integrated plan for improving the reliability and water quality of MWRA's waterworks system.

Distribution and Pumping

This program category is comprised of 31 projects to construct new and rehabilitate existing water pipelines and pumping facilities. The average age of MWRA water pipes is 82 years, with some pipes older than 100 years. MWRA's Business Plan includes an objective to complete 45 miles of waterworks pipeline rehabilitation by FY02.

Actual and Projected Miles of Waterworks System Pipe Replacement



Other Waterworks

This program includes \$12.6 million for Central Monitoring improvements, \$11.5 for rehabilitation of existing facilities, and \$7.5 million in grants and \$22.5 million in loans for the Local Water Infrastructure Rehabilitation Assistance Program which began disbursement in August 1997.

Business Operations and Support

Business Systems Plan

This \$5.9 million project supports a multi-year plan (FY95-01) for maintaining and improving the management of information and communication systems essential to core financial and business functions of MWRA. Current projects include improvements to the data network and servers, GIS systems, PBX replacement, and the development of new budgeting and contract database applications.

FRSA

The Fore River Staging Area continues operations related to construction on Deer Island, and also serves as the permanent home for the Pelletizing Plant and other MWRA operations. Pending final approval of federal loan guarantees, 130 acres of the total 180 acres of land will be sold in FY98 to Massachusetts Heavy Industries (MHI) for shipbuilding.

North Maintenance Facility

The CIP includes \$6.2 million for improvements to three existing Waterworks and Sewerage division maintenance facilities and \$12.4 million for a new central distribution and maintenance facility to consolidate maintenance operations located north of Boston. A reassessment of the approach for siting and developing the new central facility is underway.

CONTINGENCY FUNDS

MWRA maintains two Capital Budget Contingency funds for each fiscal year, one for the Boston Harbor Project, and one for all other projects. The funds provide a mechanism to address unanticipated or unpredictable changes associated with capital projects. Transfers from the funds to the budget for a capital project phase can be made at any time during the fiscal year. Such transfers occur when the Executive Director authorizes or the Board of Directors approves either a contract award amount higher than the budgeted figure for a project phase, or change orders and contract amendments that result in costs greater than budgeted. The Rates and Budget Department prepares monthly reports on current and cumulative transfers from the contingency funds.

Both funds were amended during the fiscal year, resulting in all contingency transfers being made within budget. The BHP contingency fund was amended on March 5, 1997 increasing the fund by \$28.1 million from \$26.8 million to \$54.9 million. Contributing to the need for the amendment were contingency transfers for the award of Secondary Battery C (\$14.8 million), litigation support and claims resolution (\$10.8 million), odor and corrosion control modifications and a preventive maintenance plan for Nut Island Headworks (\$6.6 million), change orders related to Secondary Battery A start-up (\$6.6 million), and change orders for the Inter-Island Tunnel (\$6.1 million). The Other Capital Projects contingency fund was amended on May 21, 1997, increasing the fund by \$4.5 million from \$15.1 million to \$19.6 million. Contributing to the need for the amendment were contingency transfers for the award of Rehabilitation of Other Pump Stations (\$2.6 million), Chelsea Relief Sewer Design (\$2.8 million), and an anticipated amendment for CSO Master Planning (\$1.4 million) which was approved after the end of the fiscal year.

CAPITAL FUNDING AND GRANT REVENUES

Capital Program Funding

MWRA uses two sources to finance its capital program: proceeds from borrowing and grant funds. Outstanding revenue bonds total \$2.9 billion as of June 30, 1997 including \$175 million in variable rate debt issued in FY97 as a tool for reducing interest costs. MWRA is currently rated an A credit by Standard & Poor's, Moody's, and Fitch. MWRA also borrows from the Commonwealth's Water Pollution Abatement Trust, also known as the State Revolving Loan Fund (SRF). The gross amount of outstanding debt from the SRF as of June 30, 1997, is \$336.6 million. The net amount of outstanding SRF debt, assuming payment of contract assistance by the Commonwealth, is \$263.3 million. In FY95 MWRA initiated a tax-exempt commercial paper program to increase its borrowing flexibility and reduce interest costs. Outstanding commercial paper totaled \$297 million as of June 30, 1997.

MWRA budgets for bond principal and interest payments in its annual Current Expense Budget (CEB). In FY98 the debt service budget is \$178 million, net of \$41 million for debt service assistance from the Commonwealth of Massachusetts. As a result of the long-term financing necessary to fully implement the capital program, MWRA anticipates that annual debt service payments will continue to increase each year at least through 2004.

Grant Revenues

State and federal grant receipts are also a significant source of funds, estimated to total \$821.8 million through June 30, 1997. The following table presents projected receipts from federal and state construction grant programs, as well as from special federal grant appropriations (including the Section 513 Program), for FY98-00 and beyond. Total grant support is projected to be \$108.7 million or 7.7 percent of expenditures in the three-year budget period.⁵

Projected Grant Revenue
(\$000)

Grant Program	FY 98	FY 99	FY 00	Total FY 98-00	Beyond FY 00
Construction Grants	\$17,727	\$2,832	\$1,097	\$21,656	\$0
Special Federal Grants	55,433	16,501	15,121	87,055	1,825
TOTAL	\$73,160	\$19,333	\$16,218	\$108,711	\$1,825

⁵Grant receipts and loan fund projections and assumptions are included with the project expenditure forecasts in the back of this document.

After projected FY98-00 grant revenue is subtracted from capital requirements, the amount that MWRA must finance is \$1.3 billion, as shown below.⁶

Capital Budget Funding Requirement
(\$000)

Program Area	Total FY 98-00 Capital Requirements	Projected Grant Receipts	Total FY 98-00 Ratepayer Funding Requirements
Wastewater	\$698,823	\$108,711	\$590,112
Waterworks	545,429	0	545,429
Business and Operations Support	12,163	0	12,163
Contingency	151,095	0	151,095
TOTAL	\$1,407,510	\$108,711	\$1,298,799

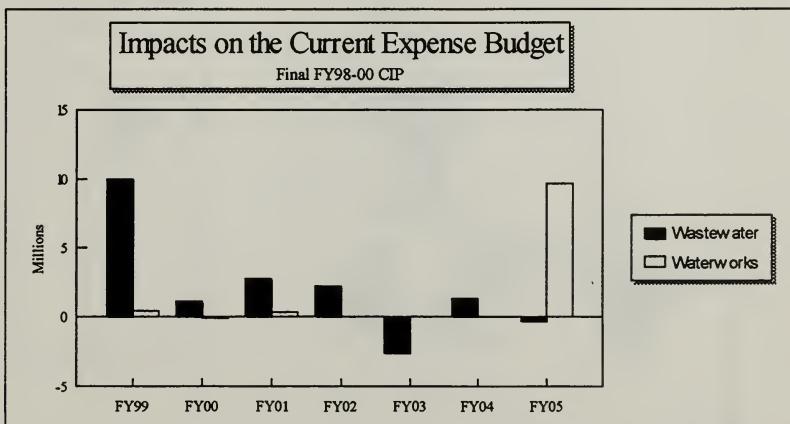
⁶ Current MWRA rate planning estimates project the need to borrow \$1.15 billion for the three year period FY98-00. The \$149 million difference between the ratepayer funded requirement in the table above and the rate planning estimate is attributed to adjustments in the planning estimate made for retainage payments for construction contracts and for an assumed capital spending rate of 90% of budget.

IMPACTS ON THE CURRENT EXPENSE BUDGET

Impacts of New Operations

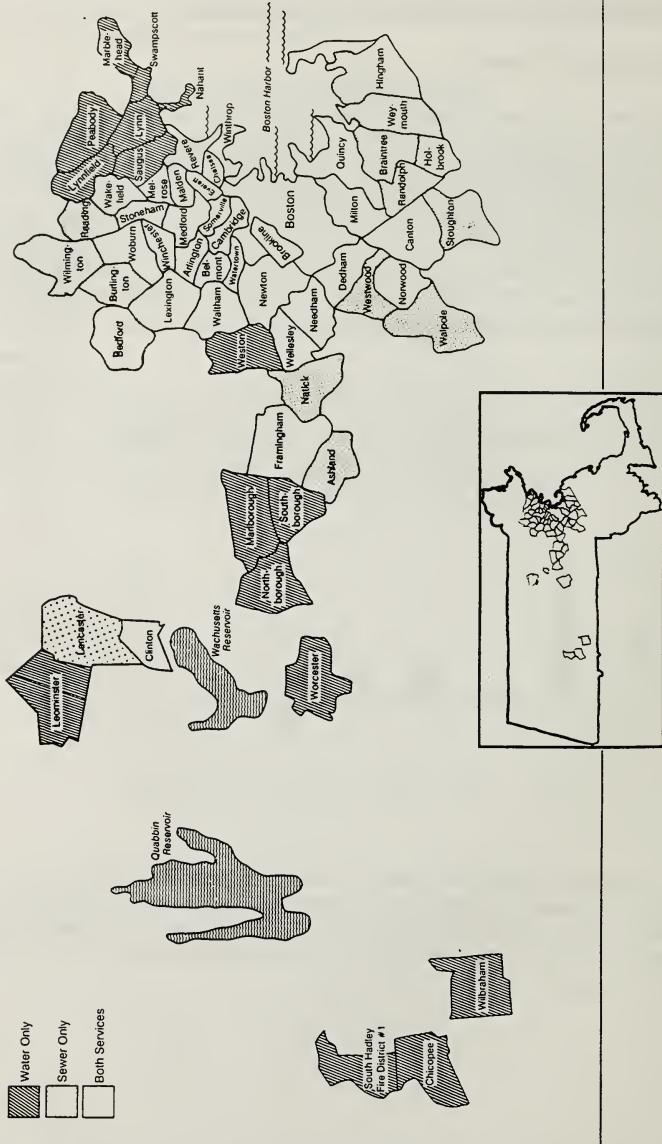
In addition to the annual financing costs included in the Current Expense Budget, the Capital Improvement Program affects annual operating budgets when capital facilities come on-line, requiring adjustments to staffing levels and other operating expenses. The project descriptions in this document provide information concerning the projected amount and timing of the CEB impacts for the years beyond FY98.

The following graph summarizes, by program area, the estimated incremental impact of additional operating costs on MWRA's Current Expense Budget from FY99 through FY05. Impacts include savings resulting from capital improvements which will reduce labor, utility, or maintenance costs.



Largest impacts are from Deer Island Treatment Plant operation (FY99) and water treatment plant (FY05). Decrease in FY03 is result of savings in sludge barging costs upon completion of the Braintree-Weymouth Relief Facilities project. When Braintree-Weymouth is complete MWRA will be able to transport sludge for Deer Island to the pelletizing plant at the Fore River Shipyard in Quincy via pipeline.

MWRA SERVICE AREA



Introduction to Wastewater Improvement Program

The Wastewater capital program includes 44 projects divided into the five program categories listed in the table below. Budget Summaries for individual project follow this introduction.

EXPENDITURE FORECAST BY PROGRAM CATEGORY (in \$ millions):

Program Category	Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Interception and Pumping	\$430.5	\$188.8	\$242.8	\$26.4	\$12.9	\$41.3	\$46.5	\$59.6	\$49.3
Non-BHP Treatment	32.8	6.7	26.1	3.8	3.9	13.5	3.7	1.2	0
Residuals Management	150.2	125.5	24.7	21.0	3.1	0	.23	.23	.23
CSOs	469.9	39.3	430.7	23.5	33.3	39.8	76.5	72.1	186.6
Other	16.4	25.6	(9.2)	(.79)	(.39)	1.5	1.1	1.3	(12.0)
TOTAL	\$1,099.9	\$384.8	\$715.1	\$74.0	\$52.7	\$96.1	\$128.0	\$134.4	\$223.1

FIVE LARGEST WASTEWATER CONTRACTS IN FY98 (in \$ millions):

Project Subphase	Total Cost	FY98 Budgeted Spending	Projected Substantial Completion Date
Residuals Management-Inside Construction	\$24.4	\$18.3	Jun 1999
North Met. Trunk Sewer - Construction	15.2	8.8	Jul 1998
North Dorchester Bay (CSO)- Design/CS/RI	26.4	4.7	Mar 2005
Upgrade Exist./Floatables (CSO)-Const. 1	6.9	4.5	Oct 1999
Framingham Ext. Relief Sewer-Const. 3	7.2	3.2	Apr 1998

Quincy Pump Facilities

Status: MWRA staff have completed review of the Hough's Neck Pump Station (HNPS) 90% design submittal, the revised HNPS hydraulic analysis, and the Squantum Pump Station 30% design submittal. Staff expect to complete review of the final risk assessment for contaminated soil remediation by August 1997.

Projected Completion Date: July 2002

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$20,018	\$4,568	\$15,450	\$733	\$3,438	\$2,982	\$4,175	\$4,122	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction 5	Will rehabilitate, not replace 30-inch force main.
Construction 6	Will rehabilitate, not replace 30-inch ductile iron portion of force main. Will also use cementitious lining instead of sliplining.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$23,342	\$20,018	(\$3,324)	May 2002	Jul 2002	2 mos.

Explanation of Changes:

- Change in scope for Construction 5 and Construction 6 to rehabilitate rather than replace 30-inch force main reduced projected costs.
- The two-month schedule delay results from the scope change.

CEB Impact

Incremental CEB cost in FY99	Incremental CEB cost in FY00	Incremental CEB cost in FY01	Incremental CEB cost in FY02	Incremental CEB cost in FY03	Description
\$5,327	\$15,976	\$9,134	(\$6,826)	\$650,323	The incremental cost includes electrical operation of the three pump stations; preventive maintenance of instrumentation controls; and onetime start-up expenses for computers and office furniture.

Braintree-Weymouth Relief Facilities

Status: Staff will recommend to the Board in Fall 1997 the most timely and cost effective method for transporting Deer Island sludge from the inter-island tunnel to the pelletizing plant at Fore River shipyard (tunnel or pipeline). MWRA has completed comments on the following submittals: Force Main hydraulic analysis, Barge Loading Facility, 60% Interim Pump Station design, the second draft of the hydraulic analysis for the Relief Pump Station and Interceptors. MWRA review is underway on the following submittals: Replacement Pump Station Value Engineering Report and 2nd draft of the Replacement Pump Station Geotechnical Report, 60% design submittal for Replacement Braintree-Weymouth Pump Station and 90% Tunnel Design. Recent developments in hazardous waste investigations on BECo property may result in re-evaluation of the design. Through June, the consultant has completed 15 geotechnical borings, 15 sediment borings, and 54 sediment analyses as part of the field investigation portion of the marine pipeline evaluation.

Projected Completion Date: April 2004

Current phase: Design

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02	
Total Cost	\$157,109	\$8,056	\$149,053	\$8,568	\$1,241	\$29,144	\$36,303	\$49,697	\$17,333

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction 9	Mill Cove Siphon: New phase for the installation of 1700 linear ft. of 42-inch pipe between Drewell Playground and Aspinwall Street in North Weymouth to act as a second barrel of the existing Mill Cove Siphon, to alleviate overflows upstream until Braintree-Weymouth relief facilities are on line in FY02.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$148,335	\$157,109	\$8,774	Oct 2002	Apr 2004	22 mos.

Explanation of Changes:

- Cost increased because of new phase for construction of Mill Cove Siphon and inflation cost of other construction phases to December 1997 dollars.
- The schedule was extended 22 months to reflect the decision to complete construction of the Interim Pump Station before the Replacement Pump Station to avoid cost of bypass pumping.

CEB Impact

Incremental CEB cost in FY02	Incremental CEB cost in FY03	Incremental CEB cost in FY04	Incremental CEB cost in FY05	Description
\$326,365	\$632,729	(\$70,389)	(\$375,142)	Pump station operation and other maintenance items.

New Neponset Valley Relief Sewer

Status: As of June 1997, all five construction contracts were substantially complete. The relief sewer was placed in service in September 1997.

Projected Completion Date: July 1997

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$31,439	\$30,157	\$1,282	\$304	\$189	\$0	\$354	\$0	\$435

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$31,650	\$31,439	(\$211)	Jul 97	Jul 97	none

Explanation of Changes:

- The overall project cost decreased due to a change order adjustment to reflect actual spending for Construction 5.

CEB Impact

None.

Upper Neponset Valley Relief Sewer

Status: The planning schedule has been extended pending hydraulic evaluation of the downstream impacts of the Neponset Valley Sewer. Resolution is expected in September 2000 upon completion of the Final Facilities Plan as part of the System Master Plan project.

Projected Completion Date: June 2003

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$2,998	\$0	\$2,998	\$0	\$0	\$0	\$0	\$400	\$2,598

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$2,998	\$2,998	\$0	Apr 2004	Jun 2003	(10) mos.

Explanation of Changes:

- The overall project completion date was accelerated by ten months in the process of re-scheduling it to commence after completion of the design phase of the System Master Plan Interceptors project.

CEB Impact

None.

Wellesley Extension Replacement Sewer

Status: Staff expect award of the final construction contract (Construction 8) in FY2001. Manhole inspection has been completed in one section of the Wellesley Extension Sewer Replacement, but TV inspection has been postponed until access and easement issues are resolved.

Projected Completion Date: March 2004

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	FY Beyond 02
\$72,480	\$62,215	\$8,265	\$179	\$713	\$281	\$280	\$1,400	\$5,412

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$72,105	\$72,480	\$375	Mar 2000	Mar 2004	48 mos.

Explanation of Changes:

- Cost increase reflects adjustment for inflation for Construction 8 to December 1997 dollars.
- Construction of the replacement sewer was substantially complete in April 1992 and the system is fully operational. However, the schedule was extended due to a reassessment of the time necessary to obtain the easements and perform the relining of a segment of the replacement sewer.

CEB Impact

None.

Framingham Extension Relief Sewer

Status: Construction contracts 1 (Force Main), 2 (Gravity Sewer), and 3 (Pump Station) are underway. Review of design documents for Construction 5 is about 60% complete. Staff made changes to the specifications to incorporate lessons learned during Construction 4 regarding the handling of relining material.

Projected Completion Date: December 2000

Current phase: Construction

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Total Cost	\$47,403	\$26,819	20,584	\$6,009	\$3,637	\$7,200	\$3,375	\$363

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$52,039	\$47,403	(\$4,636)	Oct 2000	Dec 2000	2 mos.

Explanation of Changes:

- Construction 3 was awarded for \$4.8 million less than the FY97-99 budget.

CEB Impact

Incremental CEB cost in FY99	Incremental CEB cost in FY00	Description
\$579,412	\$214,803	Incremental costs include a carbon absorption odor control system at the new Framingham pump station; chemicals required for hydrogen sulfide control along Framingham Extension Sewer; electricity costs for the new pump station; cost of preventive maintenance for instrumentation controls; and one time start-up expenses for computers and office furniture.

Cummingsville Replacement Sewer

Status: The contract requisition form for Design/CS/RI was approved in January 1997. Staff have incorporated comments from internal reviewers regarding geotechnical and hazardous materials issues in the RFQ/P. Staff revised the RFQ/P in July 1997, and the Notice to Proceed for this contract is scheduled for November 1997.

Projected Completion Date: November 2002

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$4,430	\$605	\$3,825	\$70	\$200	\$103	\$40	\$2,400	\$1,012

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$4,196	\$4,430	\$234	May 2002	Nov 2002	6 mos.

Explanation of Changes:

- ▶ The cost increase reflects an adjusted for inflation of unawarded contracts to December 1997 dollars.
- ▶ The schedule was extended by 6 months based on a reassessment of design and construction durations.

CEB Impact

None.

North Metropolitan Trunk Sewer - Phase II

Status: Construction began in July 1996. A consultant is assisting MWRA staff with QA/QC inspections for shotcrete and liner on the North Metropolitan Trunk Sewer II construction contract and resolution of problems encountered in the field with the silica fume concrete mixture. A series of trials was set up in June to determine the optimum mixture.

Projected Completion Date: July 1998

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$15,231	\$5,073	\$10,158	\$8,750	\$1,408	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$20,195	\$15,231	(\$4,964)	Aug 98	Jul 98	(1) mos.

Explanation of Changes:

- The construction contract was awarded \$5.0 million less than the FY97-99 budget amount.

CEB Impact

None.

Siphon Structure Rehabilitation

Status: The project remains in the preliminary planning stage. Completion of planning phase is scheduled for April 1998.

Projected Completion Date: December 2003

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$5,661	\$495	\$5,166	\$328	\$30	\$422	\$393	\$152	\$3,841

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Design/CS/RI	New phase for design, engineering, and construction administration costs.
Construction	New phase for construction at 110 sites.
Legal	New phase for legal expenses associated with resolving construction and design issues and claims.
Public Relations	New phase for expenses associated with resolving technical issued with communities and site abutters arising from project implementation.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$671	\$5,661	\$4,990	Jun 99	Dec 2003	54

Explanation of Changes:

- Four new subphases - Design/CS/RI, Construction, Legal, and Public Relations-were added to the FY98-00 CIP budget. In addition, the number of facilities in the planning scope that require site access improvements has increased from 35 to 83.
- Change in schedule reflects substantial completion of Construction. The FY97 substantial completion date reflected Planning and Land Acquisition only.

CEB Impact

None.

Wastewater Metering System Upgrade

Status: Progress includes recalibration of metering imprints of several local and community pumping facilities and reinstallation of 12 manhole site meters and metering lines.

Projected Completion Date: December 1998

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$400	\$60	\$340	\$310	\$30	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$500	\$400	(\$100)	Jun 97	Dec 98	18 mos.

Explanation of Changes:

- Construction budget reduced to reflect updated cost estimate for equipment and service and more extensive use of MWRA staff.
- Overall project schedule is extended by 18 months to allow more time for addressing community problems and to overlap with a meter system audit.

CEB Impact

Incremental CEB cost in FY 99	Incremental CEB cost in FY00	Description
\$25,631	\$25,633	Incremental costs associated with maintaining 25 new meters scheduled to start up by December 1998.

Ashland Extension Sewer

Status: The project remains in a preliminary planning stage. Detailed sewer information from both Framingham and Ashland is required for this project. Staff are working on an estimate of the capacity in the existing Framingham sewers, which is scheduled to be done by the end of September.

Projected Completion Date: March 2004

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$1,005	\$0	\$1,005	\$5	\$0	\$200	\$350	\$300	\$150

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$1,000	\$1,005	\$5	Aug 2002	Mar 2004	19 mos.

Explanation of Changes:

- One new subphase - Land Acquisition - was added to the FY98-00 budget, increasing the cost.
- The overall project schedule is extended because of the addition of the Land Acquisition phase. The Planning/Design phase schedule has not changed.

CEB Impact

None.

System Master Plan Interceptors

Status: The project remains in the preliminary planning stage. Work has not yet begun on the draft RFQ/P due to its relative importance in the wastewater program and staffing constraints. The schedule has been adjusted accordingly.

Projected Completion Date: May 2007

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 0 FY 0	FY 01	FY 02	Beyond FY 02
\$19,734	\$0	\$19,734	\$0	\$250	\$550	\$550	\$550	\$17,834

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$18,409	\$19,734	\$1,325	Mar 2005	May 2007	26 mos.

Explanation of Changes:

- ▶ The project costs were inflated to December 1997 dollars.
- ▶ The overall project schedule has been delayed by 26 months to reflect re-assessment of wastewater project priorities and available resources.

CEB Impact

None.

Corrosion & Odor Control Study

Status: MWRA awarded the Planning/Study contract in January 1997. Consultants completed inspections in Ashland in June and submitted inspection plans for Framingham and Natick in May and June. Inspections for these towns are in process.

Projected Completion Date: January 1999

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$685	\$142	\$515	\$379	\$164	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$702	\$685	(\$17)	Feb 98	Jan 99	11 mos.

Explanation of Changes:

- ▶ The Planning/Study contract was awarded for \$17,000 less than the FY97-99 budget.
- ▶ The overall project schedule has been extended because of slower than expected start-up for the Planning/Study phase.

CEB Impact

None.

Wastewater Facilities Rehabilitation

Status: The project remains in the preliminary planning phase. Inventory and Evaluation is scheduled to begin in November 1997.

Projected Completion Date: October 2006

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$3,551	\$0	\$3,551	\$450	\$1,100	\$417	\$700	\$200	\$684

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Inventory and Evaluation	The inventory and evaluation will be performed in a single phase rather than multiple phases.
Design and construction	Modified phase to include design and construction of a prioritized program of work developed during the Inventory and Evaluation phase.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$752	\$3,551	\$2,799	Apr 99	Oct 2006	91 mos.

Explanation of Changes:

- Overall project budget increased due to scope changes that include the addition of more phases of evaluation, design, and construction. In addition, the project costs were inflated to December 1997 dollars.
- The projected substantial completion date has been extended by more than seven years to reflect revised plans for phased construction at twenty-five facilities.

CEB Impact

Incremental CEB cost in FY99	Incremental CEB cost in FY00	Description
\$300,000	\$300,000	The recommendations from each phase of this study may include maintenance projects appropriately funded through the CEB. Also, the level of maintenance and rehabilitation is expected to increase after five years as facilities age.

West Roxbury Tunnel

Status: The project remains in the preliminary planning phase. The project has two phases: inspections will be performed by a general contractor during dry weather flows; then, if required based on inspection results, an engineering consultant will evaluate the tunnel condition and develop recommendations.

Projected Completion Date: May 1999

Current Phase: Planning

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Total Cost	\$323	\$0	\$323	\$50	\$273	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

N/A

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
N/A	\$323	N/A	N/A	May 99	N/A

Explanation of Changes:

- ▶ New project.

CEB Impact

None.

Wastewater Central Monitoring

Status: The project is in the preliminary planning phase. Construction costs, not currently included in the budget will be developed during the planning phase.

Projected Completion Date: November 1998

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$600	\$0	\$600	\$375	\$225	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
N/A	\$600	N/A	N/A	Nov 98	N/A

Explanation of Changes:

- ▶ New Project.

CEB Impact

Potential additional operating costs or savings will be identified during the planning phase.

Remote Headworks Rehabilitation

Status: The Emergency Generators contract for Rehab-Construction 3 was awarded in September 1996. The Elevator Rehab-Construction contract is expected to be advertised in August 1997, with a Notice to Proceed in January 1998.

Projected Completion Date: July 1998

Current Phase: Construction

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	FY Beyond 02
Total Cost	\$917	\$2,651	\$2,429	\$222	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$3,526	\$3,568	\$42	Sep 97	Jul 98	10 mos.

Explanation of Changes:

- The overall project schedule was extended by ten months to reflect a revised schedule for Elevator-Rehab construction.

CEB Impact

None.

Boston Harbor Performance Certification

Status: Phase I has a substantial completion date of October 1997.

Projected Completion Date: August 2001

Current Phase: Phase I

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$1,550	\$426	\$1,124	\$244	\$400	\$130	\$200	\$150	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Total Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$1,500	\$1,550	\$50	Apr 99	Aug 2001	28 mos.

Explanation of Changes:

- ▶ The overall project budget increased due to the addition of effluent outfall tunnel contract (CP-282) to the Phase III scope.
- ▶ Overall project schedule is extended by 28 months due to the addition of effluent outfall tunnel to the scope.

CEB Impact

None.

Deer Island As-Needed Design/Construction Services/Resident Inspection

Status: The projected contract notice to proceed is July 1998.

Projected Completion Date: June 2000

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$500	\$0	\$500	\$0	\$250	\$250	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

N/A

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
N/A	\$550	N/A	N/A	Jun 2000	N/A

Explanation of Changes:

- New project.

CEB Impact

None.

Deer Island Construction Services Contracts

Status: Deer Island staff have initiated use of the HVAC and Plumbing contracts for several projects.

Projected Completion Date: June 1999

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	FY Beyond 02
\$1,500	\$0	\$1,500	\$875	\$625	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

N/A

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
N/A	\$1,500	\$1,500	N/A	Jun 99	N/A

Explanation of Changes:

- ▶ New project.

CEB Impact

None.

On-Site Generation of Sodium Hypochlorite

Status: The project remains in the preliminary in-house planning stage.

Projected Completion Date: June 2000

Current Phase: Planning

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	FY Beyond 02
Total Cost	\$15,475	\$0	\$15,475	\$0	\$1,400	\$12,600	\$1,475	\$0

Changes in Scope Since FY97-99 CIP

N/A

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
N/A	\$15,475	N/A	N/A	Jun 2000	N/A

Explanation of Changes:

- ▶ New project.

CEB Impact

Operating costs for the plant beginning in FY01 range from \$1 to \$3 million depending on eventual size of plant and required utility and chemical demands. However, overall implementation of this project will result in operating savings over the useful life of the facility because on-site generation is less expensive than purchasing sodium hypochlorite.

Deer Island Coastal Protection

Status: The project remains in the preliminary planning stage. No budget or schedule has been assigned for this project due to the uncertainty of the timing and need for beach restoration, which is entirely dependent on weather events.

Projected Completion Date: To be determined

Current phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru. FY97	Remaining Balance	98	99	00	01	02	Beyond 02
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

N/A

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
N/A	\$0	N/A	N/A	TBD	N/A

Explanation of Changes:

- ▶ New project.

CEB Impact

None.

Deer Island Plant-Wide Systems

Status: MWRA staff have completed the planning for this project.

Projected Completion Date: May 1999

Current phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$250	\$0	\$250	\$115	\$135	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

N/A

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
N/A	\$250	N/A	N/A	May 99	N/A

Explanation of Changes:

- ▶ New project.

CEB Impact

None.

Deer Island Dry Storage Warehouse

Status: This project has been transferred from BHP Site Facilities Construction to the Sewerage Division. The project remains in the preliminary planning stage, with the design contract set to be awarded in early FY98. Staff continue to refine the scope and cost and estimates will reflect any changes in the Proposed FY99-01 CIP.

Projected Completion Date: March 2002

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$4,200	\$0	\$4,200	\$150	\$450	\$540	\$1,980	\$1,080	\$0

Changes in Scope Since FY97-99 CIP

Project moved from BHP program to Sewerage Division.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$4,196	\$4,200	\$4	Dec 99	Mar 2002	27 mos.

Explanation of Changes:

- Schedule has been extended to allow more time for planning and design.

CEB Impact

None.

Clinton Landfill Liner Repair

Status: The project remains in the preliminary planning stage. Staff is awaiting decision from Department of Environmental Protection regarding the cause of the leachate problem.

Projected Completion Date: March 1999

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$400	\$0	\$400	\$0	\$400	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

N/A

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
N/A	\$400	N/A	N/A	Mar 99	N/A

Explanation of Changes:

- The project was not included in the FY97-99 CIP.

CEB Impact

None.

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BOSTON HARBOR PROJECT

Introduction to Deer Island Primary and Secondary Treatment Facilities

EXPENDITURE FORECAST BY PROGRAM CATEGORY (in \$ millions):

Program Category	Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Deer Island	\$3,095.9	\$2,638.4	\$457.5	\$206.8	\$171.0	\$75.1	\$4.6	\$0	\$0
Water Transportation System	249.9	224.3	25.6	10.8	7.1	5.2	2.5	0	0
Total	\$3,378.5	\$2,869.4	\$509.2	\$221.5	\$181.9	\$93.9	\$10.7	\$1.2	\$0

FIVE LARGEST BOSTON HARBOR PROJECT CONTRACTS IN FY98 (in \$ millions):

Project Sub-Phase	Total Cost	FY98 Budgeted Spending	Projected Substantial Completion Date
CM Services	\$249.3	\$31.1	Dec-98
Secondary C Reactor and Clarifier Battery	\$161.6	\$50.9	Dec-99
Inter-Island Tunnel	\$155.7	\$10.5	Nov-97
Effluent Outfall Tunnel	\$255.6	\$9.3	Sep-98
Ancillary DI Mod. III	\$23.0	\$8.5	Jul-99

INCREMENTAL CEB IMPACTS (\$000):

Category	FY99	FY2000	FY2001	FY2002	FY2003	Description
DI Treatment Plant	\$2,218,455	\$751,141	(\$322,135)	\$387,532	(\$147,052)	Labor, Chemicals, Utilities, Maintenance, Services, and Other Spending
DI Laboratory Facilities	(\$14,932)	\$32,422	\$82,793	\$48,182	\$8,592	Labor, Chemicals, Utilities, Maintenance, Services, and Other Spending

Site Facilities Construction

Status: Through June 1997, this phase was 72.3% complete.

Projected Completion Date: June 2000

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$233,888	\$171,082	\$62,806	\$11,771	\$37,411	\$10,334	\$3,290	\$0	\$0

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$232,949	\$233,888	\$939	Jun 2000	Jun 2000	None

Explanation of Changes:

- Increased budget is the result of cost adjustments related to inflation in the unit same prices for labor and materials for unawarded contracts Western Shoreline Protection and Final Paving and Site Completion.
- The schedule was extended nine months to reflect the addition of the Shirley Gut Siphon and to complete the notice of project change (NPC) to reduce the amount of protection required along the shoreline. The schedule for Site Prep/ Demolition of Existing Treatment Plant was reduced 9 months to reflect the deletion of scope items from the contract for the demolition of the non-potable water building and cooling tower.

Pretreatment & Primary Construction

Status: Through June 1997, this phase was 95.3% complete.

Projected Completion Date: October 1999

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$697,895	\$650,136	\$47,759	\$35,223	\$8,260	\$4,276	\$0	\$0	\$0

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$666,727	\$697,895	\$31,168	Dec 97	Oct 99	22 mos.

Explanation of Changes:

- Increased budget primarily reflects odor control modifications for Nut Island Headworks and North Main Pump Station, as well as potential supplemental costs for North Main Pump Station.
- Concrete Coating/ Repair and Upgrade was adjusted 22 months to allow for the program to be completed in three phases in order to allow for the seasonal application of concrete coatings and to include Nut Island facilities in the scope.

Secondary Construction

Status: Through June 1997, this phase was 78.5% complete. During FY97, the last major contract, Secondary Reactor and Clarifier Battery C, was awarded.

Projected Completion Date: December 1999

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$928,785	\$726,435	\$202,350	\$81,813	\$77,005	\$43,532	\$0	\$0	\$0

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$901,896	\$928,785	\$26,889	Feb 2000	Dec 99	(2) mos.

Explanation of Changes:

- Most of the cost increase is due to an adjustment to the award amount for Secondary Battery C. The remaining increases are due to Secondary Battery A&B which are mostly attributable to the potential costs for the dewatering program to address the ground water infiltration beneath the slab of the secondary reactor and clarifier batteries.
- Outstanding claim settlements for additional face grouting during mining of the tunnel diffuser section have been transferred to a "BHP Outfall Tunnel claim reserve" in the contingency budget.

On-Island Residuals Construction

Status: Through June 1997, this phase was 99.0% complete.

Projected Completion Date: July 1997

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$315,107	\$310,122	\$4,985	\$4,985	\$0	\$0	\$0	\$0	\$0

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$311,437	\$315,107	\$3,670	Jun 97	Jul 97	1 mos.

Explanation of Changes:

- Budget increase resulted from change orders for Residuals Treatment Facility Secondary A & B including: relocation/modification of odor control chutes in the centrifuge discharge piping, electrical odor control review, overflow pipe, centrifuge equipment support, and start up assistance during functional performance testing.

Permanent Utilities Construction

Status: Through June 1997, this phase achieved 97.0% physical progress.

Projected Completion Date: October 1999

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$191,409	\$180,280	\$11,129	\$7,035	\$2,647	\$1,447	\$0	\$0	\$0

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$187,064	\$191,409	\$4,345	Oct 99	Oct 99	None

Explanation of Changes:

- Budget increase resulted from change orders for the On-Site Power Plant: modifications to the dump condenser and associated potential supplemental costs, additional fuel required to complete boiler testing, heat sink and low pressure system modifications, and digester gas system review.
- The schedule for the On-Site Power plant was extended nine months because of design changes such as the catwalk redesign. These construction related issues impact the fabrication installation and start-up of equipment required for the operation of the thermal requirements of the contract. The change to this schedule did not impact the overall phase completion date.

Construction Support Services

Status: Through June 1997, this phase was 75.7% complete (based on expenditures). Overall completion of these services is dependent on completion of construction contracts these services support.

Projected Completion Date: December 2000

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$85,732	\$64,901	\$20,831	\$10,690	\$5,776	\$3,418	\$947	\$0	\$0

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$75,437	\$85,732	\$10,295	Mar 2000	Dec 2000	9 mos.

Explanation of Changes:

- ▶ Budget increase resulted primarily from an adjustment to the Construction Power line item to reflect FY97 spending and review of consumption. Fuel Supplier II increase was to adjust the budget to the award amount. Increases in the service fee bid item reflect the reduced quantity demand and shorter contract duration.
- ▶ Completion of Interim Utilities was extended six months to incorporate continued rental of boilers to provide heat for the new plant until the permanent thermal plant is available.

Construction Management

Status: Through June 1997, this phase was 75.3% complete (based on expenditures). Overall completion of these services is dependent on the schedule for completion of construction contracts and the time necessary to resolve outstanding change orders and claims.

Projected Completion Date: December 2004

Current Phase: Construction

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Total Cost	\$354,898	\$267,244	\$87,654	\$41,368	\$35,960	\$10,003	\$323	\$0

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$351,338	\$354,898	\$3,560	Dec 2004	Dec 2004	None

Explanation of Changes:

- Budget increase results from a planned amendment to the Construction Management contract, greater than anticipated expenditures for special consultants primarily to support claims analysis on the Effluent Outfall Tunnel, and the extended duration of several construction contracts including the on-site thermal power plant. Additional funds were added to the outfall administration line item to support the use of the outside counsel for the ongoing defense of the claims related to the Effluent Outfall Tunnel through June 1998.
- Insurance Marine Liability schedule was shortened four years to reflect the MWRA's decision to cancel policy, and incorporate this liability into the MWRA's General Liability Insurance. Outfall Administration was extended an additional year to continue the use of outside legal counsel for the ongoing defense of claims related to the Effluent Outfall Tunnel. Outfall Start-Up was delayed 14 months to adjust for revised end date for the construction contract. This contract begins 6 to 9 months prior to completion of tunnel construction.

Design Services

Status: Through June 1997, design was 92.6% complete (based on expenditures). Overall completion of these services is dependent on completion of construction contracts these services support.

Projected Completion Date: June 2000

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$271,655	\$251,677	\$19,978	\$13,957	\$3,903	\$2,118	\$0	\$0	\$0

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$265,676	\$271,655	\$5,979	Jun 2000*	Jun 2000	None

Explanation of Changes:

- Increases are for anticipated Engineering Services During Construction amendments for Power and Hydroelectric Plant, On-Island Residuals, Secondary Treatment Facilities, and Nut Island Headworks. These design contracts support active construction contracts.
- Individual design schedule extensions reflect a change in reporting the engineering services during construction completion date instead of design completion, which was previously reported as the phase ending. There was no change to the phase completion schedule.

Water Transportation

Status: Through June 1997, this phase was 89.8% complete (based on expenditures). The duration and need for transportation services to support active construction contracts will determine when these services will be complete.

Projected Completion Date: December 2000

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$249,850	\$224,270	\$25,580	\$10,789	\$7,086	\$5,233	\$2,472	\$0	\$0

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$9,604	\$11,460	\$1,856	Dec 99	Dec 2000	12 mos.

Explanation of Changes:

- ▶ Increase results from incorporation of two previously approved amendments to the Suffolk Downs Lease, and a revised scope to include additional maintenance and dredging. Increases in WTS RO/RO Personnel Transport budget are the result of schedule changes described below.
- ▶ Contract durations were adjusted for Bus Transport, RO/RO Transport, and Personnel Transport to provide service through June 2000, with an option for an additional six months to December 2000 as a contingency should additional construction time be necessary. Costs have been updated in the CIP to reflect adjusted service.

Residual Management Facilities

Status: The Inside Construction contract was awarded in December 1996, six months later than planned because of procurement and legal issues. As a result, MWRA will not meet an upcoming court milestone to complete construction and commence operations of facility modifications at FRSA by August, 1997. Projected completion date is now October 1997.

Projected Completion Date: June 1999

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$51,856	\$27,128	\$24,278	\$20,995	\$3,058	\$0	\$225	\$225	\$225

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Conservation Study	New phase: study to determine feasibility of improving energy efficiency and reducing operations costs by the use of conservation.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$53,527	\$51,856	(\$1,671)	Jun 98	Jun 99	12 mos.

Explanation of Changes:

- The Inside Construction contract was awarded for \$3.9 million less than the FY97-99 budget. Other changes include the addition of a Cogeneration Study phase that has a Notice to Proceed date of January 1998.

CEB Impact

Incremental CEB cost in FY99	Incremental CEB cost in FY00	Incremental CEB cost in FY01	Incremental CEB cost in FY02	Incremental CEB cost in FY03	Description
\$7,176,651	(\$229,443)	\$2,950,154	\$1,367,810	(\$3,772,820)	The incremental cost includes increases in chemicals and utilities, maintenance, and other costs associated with projected increases in sludge volume associated with the commencement of DI Secondary Battery B in February, 1998, DI Secondary C in July 2002; and decreases in utilities and barging costs beginning in FY02 when the Braintree-Weymouth tunnel becomes operational.

Introduction to Combined Sewer Overflow (CSO) Program

The CSO program category is divided into three phases: MWRA Managed CSOs, Community Managed CSOs, and CSO Planning and Support. MWRA Managed is comprised of nine separate projects, Community Managed is comprised of seven separate projects, and CSO Planning and Support is comprised of multiple contracts related to planning and support services for the CSO program. Each project is summarized in the following section.

Public and regulatory review of the Final Environmental Impact Report (FEIR) for the CSO Program is expected to be completed in October 1997. Water quality determinations by the Department of Environmental Protection (DEP) are necessary to approve the CSO plan and each project.

CIP operating cost impacts for the CSO program category are summarized below, and will be further developed as part of the planning and design phases for individual projects.

Incremental CEB Cost in FY99	Incremental CEB Cost in FY00	Incremental CEB Cost in FY01	Incremental CEB Cost in FY02	Incremental CEB Cost in FY03	Incremental CEB Cost in FY04	Incremental CEB Cost in FY05
\$7,700	\$18,400	\$2,400	\$30,810	\$0	\$1,339,000	\$11,250

North Dorchester Bay Consolidation Conduit, Reserved Channel Consolidation Conduit, and Reserved Channel Pumping Facility

Status: A contract for design, construction administration, and resident inspection services for all three projects, in the amount of \$19.8 million, was executed effective August 11, 1997.

The recommendation in the FEIR not to provide screening at the Reserved Channel Facility is undergoing review and is subject to approval by regulatory and court parties.

Projected Completion Date: March 2005

Current Phase: Planning/Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$146,550	\$0	\$146,550	\$4,711	\$6,986	\$2,881	\$42,047	\$46,834	\$43,091

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Project	This project is comprised of components of three separate FY97-99 CIP projects: In-line Storage Dorchester Brook Conduit, CSO Relocation to Reserved Channel and CSO Treatment Facility, and Consolidation to Screening and Disinfection Facility BOS076-080.
Design/CS/RI	This is a new subphase to perform design and CS/RI services for the three construction contracts.
Construction 1	This is a new subphase for construction of the North Dorchester Bay Consolidation Conduit that was part of the CSO Relocation to Reserved Channel and CSO Treatment Facility project in the FY97-99 CIP.
Construction 2	This is a new subphase for construction of the Reserved Channel CSO Pumping Facility that was part of the CSO Relocation to Reserved Channel and CSO Treatment Facility project in the FY97-99 CIP.
Construction 3	This is a new subphase for construction of the Reserved Channel Consolidation Conduit that was part of the Consolidation to Screening and Disinfection Facility BOS076-BOS080 project in the FY97-99 CIP.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$113,728	\$146,550	\$32,822	Mar 2005	Mar 2005	None

Explanation of Changes:

- The DEIR included revised cost estimates for site specific geotechnical conditions and other environmental factors which resulted in increased cost estimates for this project. The majority of the increase was attributable to construction contract 1, the North Dorchester Bay Conduit.

CEB Impact

Included in CSO total CEB Impact table at the beginning of this section.

Stony Brook Screening and Disinfection Facility

Status: The proposed screening and disinfection facility was recommended in the DEIR and is included in the FY98-00 CIP, the FEIR has since recommended sewer separation in lieu of treatment. The new recommendation will be reflected in the Proposed FY99-01 CIP, pending review and approval by regulatory and court parties, as well as formal agreement between MWRA and BWSC on project implementation responsibilities and funding. The design phase is scheduled to commence by July 1998.

Projected Completion Date: March 2003

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$19,439	\$0	\$19,439	\$0	\$733	\$898	\$5,577	\$8,637	\$3,594

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Project	This project was created by splitting up the Stony Brook/CAM005/Outfall Improvements Project in the FY97-99 CIP.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$23,920	\$19,439	(\$4,461)	Mar 2002	Mar 2003	12 mos.

Explanation of Changes:

- Siting constraints have resulted in a requirement for pumping at the Stony Brook pumping facility, which has significantly increased estimated capital and operating costs. However, the overall project cost decreased because of scope change.
- The project schedule is extended one year because of scope changes described above.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Cambridge CAM005 Hydraulic Relief, Charlestown BOS017 Hydraulic Relief, Charlestown Branch Sewer Restriction Removal

Status: A contract for design, construction administration, and resident inspection services for all three projects, in the amount of \$588,000, was executed effective August 12, 1997.

The recommendation in the Final Environmental Impact Report not to relieve the MWRA interceptor immediately downstream of the the CAM005 dry weather connection and the recommendation for hydraulic relief in lieu of screening and disinfection at BOS017 are under review and are subject to approval by regulatory and court parties.

Projected Completion Date: August 2000

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$3,539	\$0	\$3,539	\$107	\$181	\$2,861	\$385	\$5	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Project	The FY97-99 CIP included screening and disinfection facilities to treat CAM005 and BOS017 discharges, as recommended in the 1994 CSO Conceptual Plan. Both recommendations were changed to hydraulic relief in the 1996 DEIR. Removal of the Charlestown Branch Sewer restriction was a new recommendation in the DEIR, tied to the proposed BOS019 storage conduit.
Project	This project was split from the Stony Brook facility and now involves a small hydraulic relief project. The CAM005/BOS017 project was split from the BOS017/BOS019 screening & disinfection facility project and also now involves a small hydraulic relief project.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$5,897	\$3,539	(\$2,358)	Mar 2002	Aug 2000	(19) mos.

Explanation of Changes:

- The project cost has decreased because some project components are no longer included in the scope as redefined in the FY98-00 CIP.

Cambridge CAM005 Hydraulic Relief, Charlestown BOS017 Hydraulic Relief, Charlestown Branch Sewer Restriction Removal

Combined Sewer Overflow Program

- ▶ The project schedule has changed because project components have been combined. The schedules for CAM005 and BOS017 are more aggressive than in the FY97-99 CIP, because the scope and complexity of the project components was reduced.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Interception Connection (BOS032)

Status: While relief of the interceptor connection was recommended in the DEIR and is included in the FY98-99 CIP, the FEIR has since recommended to delete this project because sewer separation recently completed by BWSC allows the CSO regulator to be closed and makes the relief project unnecessary. The relief project will be deleted in the Proposed FY99-01 CIP, pending review and approval by regulatory and court parties.

Projected Completion Date: June 2000

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru 97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$1,149	\$0	\$1,149	\$91	\$528	\$530	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$1,012	\$1,149	\$137	Jun 2000	Jun 2000	None

Explanation of Changes:

- ▶ The project costs were inflated to December 1997 dollars.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

East Boston Branch Sewer Relief

Status: The design phase of this project is scheduled to begin by March 2000.

Projected Completion Date: September 2005

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$30,803	\$0	\$30,803	\$0	\$0	\$155	\$1,046	\$1,071	\$28,532

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$35,596	\$30,804	(\$4,792)	Sep 2005	Sep 2005	None

Explanation of Changes:

- The project budget decreased because of a reduction in the estimated cost for contaminated soil removal.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Fort Point Channel Consolidation Conduit, Charlestown BOS019 Storage Conduit

Status: The Fort Point Channel and BOS019 projects are scheduled to commence design by July 2002.

Projected Completion Date: March 2007

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$16,691	\$0	\$16,691	\$0	\$0	\$0	\$0	\$0	\$16,691

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Project	This project is comprised of components of two separate FY97-99 CIP projects: Screening and Disinfection BOS017 and BOS019, and Storage/Consolidation Conduit BOS072-073.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$8,745	\$16,691	\$7,946	Mar 2007	Mar 2007	None

Explanation of Changes:

- The project budget increased because of scope changes described above, adjusted excavation volumes, increased odor control equipment costs, and inflation.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Chelsea Trunk Sewer Relief, Chelsea Branch Sewer Relief, Chelsea CHE008 Outfall Improvements

Status: A contract for design, construction administration and resident inspection services for all three project components, in the amount of \$3.8 million, was executed on June 18, 1997.

Projected Completion Date: December 2002

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	FY Beyond 02
\$28,857	\$0	\$28,857	\$909	\$878	\$11,316	\$10,966	\$1,322	\$3,467

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction 2	The Chelsea Branch Sewer Relief project has increased in size and scope to include relief of the parallel Revere Extension Sewer.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$6,997	\$28,857	\$21,860	Jun 2001	Dec 2002	18 mos.

Explanation of Changes:

- The DEIR included revised cost estimates for site specific geotechnical conditions and other environmental factors which resulted in increased cost estimates for this project. In addition, two new construction subphases were added for existing sewer relining, and costs were inflated to December 1997 dollars.
- The project schedule is extended because of the scope changes described above.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Union Park Detention Treatment Facility

Status: The design phase of this project is scheduled to begin by December 1999.

Projected Completion Date: March 2005

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$32,620	\$0	\$32,620	\$0	\$0	\$516	\$1,135	\$1,032	\$29,937

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction	Detailed engineering evaluations during development of the DEIR determined that the proposed treatment facility must be partially integrated into the existing Boston Water and Sewer Commission pumping station. The proposed construction, therefore, will involve work at both facilities. The DEIR recommends that both facilities be operated by one entity, either BWSC or MWRA. MWRA and BWSC have not yet reached a final agreement.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$15,653	\$32,620	\$16,967	Mar 2005	Mar 2005	None

Explanation of Changes:

- The budget increased because of higher estimates for contaminated soil removal, and inflation of costs to December 1997 dollars.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Upgrade Existing CSO Facilities and MWRA Floatables Control

Status: A contract for design, construction administration and resident inspection services for all five facility upgrades and for MWRA floatables control, in the amount of \$2.7 million, was executed on June 30, 1996.

A Notice of Project Change (NPC) was submitted to MEPA in August 1997, describing scope changes related to work that must be conducted off of the existing facility sites to construct new dechlorination systems. The NPC will undergo a public comment period and MEPA decision is expected by mid October 1997. That decision may allow design work as recommended in the NPC to proceed or may require additional information and further MEPA review. Design and construction schedules are therefore dependent on MEPA decisions. A related amendment to the design contract is necessary to incorporate the scope changes and associated increases in design cost.

MWRA has reported to the federal court that certain construction milestones in Schedule Six will not be met because of the scope changes. A final schedule will be developed following completion of MEPA review, and will be incorporated in the FY99-01 CIP.

At the direction of EPA, MWRA is conducting a field study to verify the effectiveness of underflow baffles to remove floatable materials from CSO flow. A final report on the study is due in January 1998 in compliance with Schedule Six. Verified performance of the underflow baffles and EPA acceptance of the technology are necessary to allow design and construction to move forward.

Projected Completion Date: October 1999

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$12,317	\$1,234	\$11,083	\$7,964	\$2,454	\$665	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Total Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$10,952	\$12,317	\$1,365	Sep 2001	Oct 99	(23) mos.

Explanation of Changes:

- ▶ The budget increased by including the addition of hazardous material handling costs, a variety of safety and process improvements at all three facilities, and inflation of project costs to December 1997 dollars.
- ▶ The overall project schedule has been accelerated by two years to reflect earlier construction of the floatable control component.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

South Dorchester Bay Sewer Separation (Fox Point BOS088-089)

Status: A contract for design services was executed by BWSC in June 1996. A preliminary design report is expected by September 1997. BWSC will execute a separate contract for construction management services by October 1997. Construction is scheduled to begin by November 1998.

Projected Completion Date: September 2007

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$38,337	\$2,287	\$36,050	\$502	\$2,017	\$3,541	\$4,836	\$5,145	\$20,009

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$33,317	\$38,337	\$5,020	Sep 2007	Sep 2007	None

Explanation of Changes:

- The budget increased because the design award was more than the budget, the construction scope changed to include handling of hazardous materials, and project costs were inflated to December 1997 dollars.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

South Dorchester Bay Sewer Separation (Commercial Point BOS090)

Status: A contract for design services was executed by BWSC in June 1996. A preliminary design report is expected by September 1997. BWSC will execute a separate contract for construction management services by October 1997. Construction is scheduled to begin by November 1998.

Projected Completion Date: November 2008

Current Phase: Design

Expenditure Forecast (in \$000s)

	Projected Payment thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Total Cost	\$60,586	\$2,446	\$58,140	\$212	\$2,159	\$4,787	\$7,454	\$35,686

Changes in Scope Since FY97-99 CIP

None.

Changes to Total Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$54,120	\$60,586	\$6,466	Nov 2008	Nov 2008	None

Explanation of Changes:

- ▶ The budget increased because of a construction scope change to incorporate handling of hazardous materials, and inflation costs to December 1997 dollars.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Neponset River Sewer Separation (BOS093-095)

Status: Design services are ongoing, primarily through BWSC in-house design efforts. Construction will be completed in three phases, the first of which commenced in April 1996 and was completed in April 1997. The second phase is expected to commence by April 1998.

Projected Completion Date: June 2000

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$9,262	\$323	\$8,939	\$2,896	\$3,996	\$2,047	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Total Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$10,128	\$9,262	(\$866)	Jun 2000	Jun 2000	None

Explanation of Changes:

- The overall project budget has decreased because a portion of the construction contract is now funded through the System Optimization Plan (SOP) program.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Constitution Beach Sewer Separation (BOS002)

Status: A contract for design services was executed by the City of Cambridge in January 1997. A preliminary design report is due in November 1997. Cambridge is presently developing an amendment to the contract to provide additional hydraulic modeling services, which will require a time extension for design services. Construction will be performed in phases, with the first phase scheduled to begin by July 1998.

Projected Completion Date: October 2000

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$9,264	\$114	\$9,150	\$747	\$3,982	\$4,421	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$8,236	\$9,264	\$1,028	Oct 2000	Oct 2000	None

Explanation of Changes:

- ▶ The budget increased because of a construction scope change to incorporate handling of hazardous materials, and inflation of costs to December 1997 dollars.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Cambridge CAM002-004 Sewer Separation

Status: A contract for design services was executed by the City of Cambridge effective January 1997. A preliminary design report is due in November 1997. Cambridge is presently developing an amendment to the contract to provide additional hydraulic modeling services, which will require a time extension for design services. Construction will be performed in phases, with the first phase scheduled to begin by July 1998.

Projected Completion Date: January 2000

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$12,577	\$1,001	\$11,576	\$3,496	\$7,454	\$626	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Total Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$11,174	\$12,577	\$1,403	Jan 2000	Jan 2000	None

Explanation of Changes:

- The budget increased because of a construction scope change to incorporate handling of hazardous materials, and inflation of project cost to December 1997 dollars.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

BWSC Floatables Control

Status: Design services are expected to begin in 1998, following completion of an MWRA study on the performance of underflow baffles. The project is subject to the results of the field study and EPA and DEP acceptance of the technology. Projected construction completion date is May 2001.

Projected Completion Date: May 2001

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$1,101	\$58	\$1,043	\$15	\$73	\$675	\$200	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$970	\$1,101	\$131	May 2001	May 2001	None

Explanation of Changes:

- The budget increased because of a construction scope change to incorporate handling of hazardous materials, and inflation of the project costs to December 1997 dollars.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

Cambridge Floatables Control

Status: Design services are included in the Cambridge CAM002-004 Sewer Separation contract, which commenced in January 1997. The project is subject to the results of the field study on underflow baffles and EPA and DEP acceptance of the technology. Projected construction completion date is May 2001.

Projected Completion Date: May 2001

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$416	\$0	\$416	\$16	\$39	\$254	\$107	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$369	\$416	\$47	May 2001	May 2001	None

Explanation of Changes:

- The project budget increased because of a construction scope change to incorporate handling of hazardous materials, and inflation of project cost to December 1997 dollars.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

CSO Planning and Support

Status: Work commenced in March 1992 and is scheduled to be completed in March 1998. A Final Conceptual Plan and System Master Plan was completed in 1994, a Draft CSO Facilities Plan and EIR was filed with MEPA in October 1996, and a Final CSO Facilities Plan and EIR was filed with MEPA in August 1997. Following a public comment period, the Secretary of Environmental Affairs and DEP are expected to issue decisions on the Final CSO Facilities Plan and EIR by the end of the October 1997. DEP must issue water quality determinations by December 1997. The determinations are necessary for CSO plan approval by DEP and EPA. Reassessment of appropriate CSO control plans for the Charles River by MWRA and the court parties is also due by December 1997. The ability to implement the CSO plan as recommended in the FEIR is dependent upon certain water quality standards determinations and acceptance of the Charles River plan.

Projected Completion Date: February 2010

Current Phase: Final Plan and EIR Approval

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$46,407	\$31,798	\$14,610	\$1,828	\$1,771	\$3,623	\$2,643	\$186	\$4,559

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Master Planning	Public comments on the DEIR led to a significant increase in level of effort for developing the FEIR. Also, the field study to verify the performance of underflow baffles for controlling floatable materials in CSO was greatly expanded.
Land	The FY97-99 CIP did not include a budget for land acquisition.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$36,265	\$46,407	\$10,142	Feb 2010	Feb 2010	None

Explanation of Changes:

- The overall project budget increased due to the addition of a Land/Easement phase with a budget of \$12.7 million.

CEB Impact

Included in CSO total CEB Impact table in the beginning of this section.

I/I Community Financial Assistance Program

Status: Phase I of the I/I program is in the loan repayment stage. \$7.3 million of Phase II were funds disbursed to 18 communities in FY97.

Projected Completion Date: June 2010

Current Phase: Repayment

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$15,937	\$25,141	(\$9,204)	(\$789)	(\$389)	\$1,511	\$1,111	\$1,306	(\$11,954)

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$15,937	\$15,937	\$0	Jun 2006	Jun 2010	48 mos.

Explanation of Changes:

- The project schedule was extended to reflect the most recent plan for disbursement of funds.

CEB Impact

None.



Introduction to Waterworks

The Waterworks capital program includes 49 projects divided into the four program categories listed in the table below. Budget Summaries for individual project follow this introduction.

EXPENDITURE FORECAST BY PROGRAM CATEGORY (in \$ millions):

Program Category	Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Drinking Water Quality Improvements	\$609.8	\$30.8	\$579.0	\$28.4	\$23.7	\$53.6	\$113.6	\$141.0	\$218.7
Transmission	644.7	107.7	537.1	90.3	117.6	109.6	88.0	70.5	61.1
Distribution and Pumping	463.0	88.0	374.9	22.6	35.3	30.0	28.4	26.6	232.0
Other	32.7	13.1	19.6	24.7	11.9	(2.3)	(4.5)	(4.5)	(5.8)
TOTAL	\$1,750.1	\$239.6	\$1,510.5	\$165.9	\$188.6	\$190.9	\$225.5	\$233.6	\$506.0

FIVE LARGEST WATERWORKS CONTRACTS IN FY98 (in \$ millions):

Project Subphase	Total Cost	FY98 Budgeted Spending	Projected Substantial Completion Date
MWWST-Middle Tunnel Segment (CP2)	\$253.1	\$34.1	Feb 2003
MWWST-Western Tunnel Segment (CP1)	144.5	21.4	Apr 2003
MWWST-Weston Tanks (CP8)	46.1	11.5	Nov 2000
Walnut Hill WTP-Design/ESDC	24.8	9.3	Dec 2003
MWWST-Shaft 5A Horizontal Bore (CP3)	12.0	7.7	Feb 1999

Walnut Hill Water Treatment Plant

Status: Through June 1997, 30 % design on three treatment plant options was completed. An ongoing assessment with DEP and EPA continues to determine the most cost effective approach to meeting water quality standards. A decision is anticipated in fall 1997.

Projected Completion Date: May 2004

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$411,817	\$12,886	\$398,931	\$11,674	\$5,654	\$46,802	\$87,237	\$113,237	\$134,327

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Open Reservoir Water Quality Study	New phase.
AWWARF Red Water Control Strategy Study	New phase to fund MWRA's participation with American Water Works Association Research Foundation in a national study to examine treatment evaluation of bacteria regrowth techniques.
Distribution Water Quality Study	Deleted.
Permit Fees	Renamed phase from DEP Fees to Permit Fees.
WTP Design/ESDC	Removed work associated with resident inspection and changed phase name from Design/CA/RI to Design/ESDC. Added Task 8 work and interim disinfection facility to this scope.
WTP Construction	Removed work associated with the Cosgrove Aqueduct and replaced on-site residuals disposal with direct sewer discharge.
Construction Management/RI	Expanded the scope for construction management support to include full construction management and resident inspection.
Construction Interim Disinfection Facility	New phase Shaft A to construct an interim disinfection facility at Cosgrove.
Norumbega Covered Storage: Preliminary Design, Design/CA/RI, Construction, Land, Appraisal	All contracts associated with developing the Norumbega Covered Storage Facility are included as a separate project in the Drinking Water Quality Improvements program category.

Interim Corrosion Control: Design/CA/RI, Construction Wachusett, Construction Northboro	Moved the ICC Facility to the completed projects section in the Drinking Water Quality Improvements program category.
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Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$394,694	\$411,817	\$17,123	Dec 2003	May 2004	5 mos.

Explanation of Changes:

- Revised cost estimates incorporating \$10 million reduction for discharge of water residuals and \$2.5 million reduction for the elimination of Cosgrove improvements, offset by \$23 million in inflation to escalate cost to December 1997 dollars.
- Schedule delay reflects EPA disinfection by-product rule regulatory delay.

CEB Impact

The estimated annual cost of operating the water treatment plant and corrosion and disinfection facilities ranges from \$5 million to \$10 million depending on the ultimate treatment option determined for Walnut Hill Water Treatment Plant. The initial year of CEB spending will be FY04. A detailed estimate of the operations and maintenance costs for the new plant will be developed in the design phase.

Incremental CEB cost in FY99	Incremental CEB cost in FY00	Description
\$136,863	(\$2,294)	Additional chemicals for the operation of interim disinfection somewhat offset by a reduction in services for elimination immediate disinfection service contract.

Quabbin Water Treatment Plant

Status: Through June 1997, 30% design was complete with 60% design scheduled for completion in October 1997. Construction is anticipated to begin in August 1998.

Projected Completion Date: July 2000

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$5,708	\$612	\$5,096	\$573	\$2,085	\$2,235	\$203	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction	Instead of the construction of one facility, construction of two disinfection facilities, one located upstream and the other located downstream.
Nash Hill Covered Storage: Preliminary Design, Design/CA/RI, and Construction	Now a separate project in the Drinking Water Quality Improvements program category.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$4,563	\$5,708	\$1,145	Jul 2000	Jul 2000	None

Explanation of Changes:

- Increased construction cost estimate incorporating two locations for chemical input to ensure improved water quality.
- Minor schedule delays in design are not expected to change the construction schedule.

CEB Impact

The estimated annual cost of operating the corrosion control and disinfection facility is currently estimated at \$470,000. The initial year of CEB spending will be FY01. An estimate of the operations and maintenance cost with full automation for the new facility will be developed during the design phase.

Watershed Protection

Status: The final report on the Sudbury Reservoir Protection Study has been completed and MWRA payments for construction of the Holden and West Boylston sewer have commenced. It is expected the final payments for the sewer project will be made in June 2000.

Projected Completion Date: June 2000

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$8,602	\$2,102	\$6,500	\$3,000	\$2,500	\$1,000	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$8,592	\$8,602	\$10	Jun 2000	Jun 2000	None

Explanation of Changes:

- Slight increase in cost the result of minor changes made by the consultant to the final Sudbury Reservoir Protection Study Report.

CEB Impact

None.

Norumbega Covered Storage

Status: The notice to proceed for design remains scheduled for December 1997. On May 14, 1997 the Town of Weston voted not to authorize the sale of town land to MWRA for construction of the facility. Authorization of land acquisition is being sought via state legislation.

Projected Completion Date: August 2004

Current Phase: Planning/Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$111,133	\$1,882	\$109,251	\$736	\$1,125	\$1,354	\$25,693	\$27,249	\$53,094

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$103,266	\$111,133	\$7,867	Aug 2004	Aug 2004	None

Explanation of Changes:

- Construction estimate inflated to December 1997 dollars.
- Land purchase continues to be the critical path. Currently the only phase with a major schedule change is the land acquisition. Other schedule changes may be necessary depending on the resolution of the land issue.

CEB Impact

The preliminary estimated annual cost of maintaining the quality and quantity of the open Norumbega Reservoir for emergency use after it is taken off-line is approximately \$82,000. An estimate of the operations and maintenance costs for the new covered storage facility will be developed in the design phase. Initial CEB spending for both impacts will begin in FY05.

Nash Hill Covered Storage

Status: MWRA has completed 100% design and advertised the construction contract.

Projected Completion Date: October 1999

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$14,929	\$886	\$14,043	\$5,737	\$6,228	\$2,078	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction	Added yard piping for operational flexibility and to increase system reliability; expanded electrical and instrumentation to automate operations; added a single baffle in each tank to optimize flow and resultant water quality; and revised storm water and overflow drainage to be on-site.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$11,869	\$14,929	\$3,060	Oct 99	Oct 99	None

Explanation of Changes:

- Minor cost changes associated with a design amendment in addition to increase in construction costs which reflect change in scope and inflation.

CEB Impact

None.

Blue Hills Covered Storage

Status: MWRA has awarded the preliminary design/environmental impact report contract and preliminary work has begun.

Projected Completion Date: March 2005

Current Phase: Preliminary Design/EIR

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$27,700	\$81	\$27,619	\$356	\$331	\$83	\$490	\$492	\$25,867

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
DEP/Permit Fees	New phase required to pay the cost of permitting fees. Used to isolate cost and better explain overall budget.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$21,540	\$27,700	\$6,160	Mar 2005	Mar 2005	None

Explanation of Changes:

- The award amount for preliminary design/EIR was greater than budget due to the need for additional consulting resources to address environmental complexities associated with locating the facility within the Blue Hills reservation.
- Increased construction costs reflect new engineering estimate based on information gleaned from the 100% design estimate prepared for the Fells Reservoir.

CEB Impact

None.

Bear Hill Covered Storage

Status: This project remains in the preliminary in-house planning stage.

Projected Completion Date: December 2011

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$5,419	\$0	\$5,419	\$0	\$0	\$0	\$0	\$0	\$5,419

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$5,356	\$5,419	\$63	Dec 2011	Dec 2011	None

Explanation of Changes:

- Construction cost estimates are inflated to December 1997 dollars.

CEB Impact

None.

Fells Covered Storage

Status: Construction commenced on this facility with a notice to proceed in March 1997. By the end of FY97 all rock excavation was complete and concrete tank replacement had begun.

Projected Completion Date: May 1999

Current Phase: Construction

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Total Cost	\$16,020	\$3,896	\$12,124	\$6,326	\$5,798	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction-Fells Reservoir	Added 1600 linear feet of new 36-inch water mains to replace 50- and 100-year old cast iron mains.

Changes to Total Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$16,748	\$16,020	(\$728)	May 99	May 99	None

Explanation of Changes:

- The construction contract award was \$1.6 million less than budget. This reduction was offset by increased costs related to the change in scope.

CEB Impact

None.

MetroWest Water Supply Tunnel

Status: In March, 1997, three of four major tunnel construction contracts and the Loring Road tank construction have been awarded. Western Tunnel Segment (CP-1) was awarded significantly under budget. The project remains on schedule with minor delays associated with the Middle Tunnel Segment (CP-2). The projected substantial completion date remains the same.

Projected Completion Date: July 2005
(Beneficial use of the MetroWest Tunnel can occur in October 2003)

Current Phase: Construction

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Total Cost	\$95,301	\$527,762	\$89,877	\$117,012	\$109,470	\$85,856	\$68,232	\$57,315

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Western Tunnel Segment - CP1	Changed name from Construction Contract 1. Added a cost allowance for tunnel excavation through Bloody Bluff, moved work associated with the Hultman Aqueduct fault zone connections to CP6, and moved work associated with pressure testing and disinfecting the tunnel to CP7.
Middle Tunnel Segment - CP2	Changed name from Construction Contract 2.
Eastern Tunnel Segment - CP3	Changed name from Construction Contract 3. Moved work associated with the Weston Covered Storage Tanks to CP8. CP3 broken into two contracts: 3 (excavation of Shaft 5A) and 3A (Shaft 5A to the "WYE" onto Shaft W. Design/ESDC contract includes geotechnical and contract repackaging work related to the reconfiguration of the Eastern Tunnel Segment Contract.)
Surface Work - CP4	Changed name from Construction Contract 4.
MHD Salt Sheds - CP5	Changed name from Construction Contract 5.
Hultman Interconnection/Inspection - CP6	New phase. Formerly part of CP1.
Testing & Disinfection - CP7	New phase. Formerly part of CP1.
Weston Covered Storage Tanks-CP8	New phase. Formerly part of CP3. Moved rehabilitation of 4,100 linear feet of 60-inch pipe and four master meters from WASM 4 Construction Weston Aqueduct Terminal Chamber and Master Meters.
Construction Management	CM scope expanded to include continuous noise monitoring (MEPA Certificate), addition of licensed site professional, and an early warning observation well to detect the presence of hazardous materials.

Weston MOA	New phase.
Southborough MOA	New phase.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$637,025	\$623,063	(\$13,962)	Feb 2006	Jul 2005	(7) mos.

Explanation of Changes:

- ▶ The award of the Western Tunnel Segment (CP-1) for \$16 million less than budgeted resulted in a significant decrease in the construction costs somewhat offset by \$1.3 million additional MOA costs and increases to Design/EIR-Tunnel/ESDC reflect geotechnical and contract repackaging work.
- ▶ The minor schedule changes are a result of contract repackaging and scope adjustments.

CEB Impact

None.

Dam Control Valve Replacement

Status: Wachusett valve replacement is complete, Sudbury valve replacement construction is scheduled to begin in December 1997.

Projected Completion Date: July 1998

Current phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$1,870	\$1,072	\$798	\$330	\$468	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$1,829	\$1,870	\$41	Feb 98	Jul 98	5 mos.

Explanation of Changes:

- ▶ The construction cost estimate for the Sudbury valves replacement has been inflated to December 1997 dollars.
- ▶ The schedule was delayed for 5 months based on a reassessment of resources and time necessary to complete the scope.

CEB Impact

None.

Sluice Gate Rehabilitation

Status: The conceptual design report has been completed. An RFP and scope of service is being defined.

Projected Completion Date: September 2002

Current Phase: Construction

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Total Cost	\$7,599	\$3,551	\$4,048	\$10	\$123	\$123	\$1,896	\$1,896

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction - Sudbury Toe Drain Repair	New phase. The required work for the Toe Drain is substantially complete.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$5,931	\$7,599	\$1,668	Aug 2003	Sep 2002	(11) mos.

Explanation of Changes:

- The phase for construction of the Sudbury Toe Drain was added which accounts for \$1.4 million of the increase. The remainder is Phase 2 inflated to December 1997 dollars.
- The schedule is accelerated by one year based on a reassessment of the scope and schedule. This schedule will be reassessed during the FY99-00 CIP budget process.

CEB Impact

None.

Metropolitan Tunnel Loop

Status: This project remains in the preliminary in-house planning stage. Staff work is expected to commence in the spring of 2000. Total project cost reflects only study costs.

Projected Completion Date: December 2002

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$222	\$0	\$222	\$0	\$0	\$0	\$12	\$140	\$70

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Feasibility Study/Survey	The scope of the study has been expanded to consider the southern as well as the northern portion of the tunnel loop.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$214	\$222	\$8	Dec 99	Dec 2002	36 mos.

Explanation of Changes:

- The estimated project cost has been inflated to December 1997 dollars.
- The three year schedule delay reflects the additional time necessary to define the study parameters and overall project need.

CEB Impact

None.

Chicopee Valley Aqueduct Interconnections

Status: This project remains in the preliminary in-house planning stage. Staff work is expected to commence in the summer of 1999.

Projected Completion Date: November 2004

Current phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$4,150	\$0	\$4,150	\$0	\$0	\$0	\$231	\$231	\$3,688

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$4,216	\$4,150	(\$66)	Oct 2004	Nov 2004	1 mos.

Explanation of Changes:

- The construction and design estimates are inflated to December 1997 dollars.

CEB Impact

None.

Winsor Dam Hydroelectric

Status: MWRA filed two preliminary progress reports with the Federal Energy Regulatory Commission, one in November 1996 and May 1997. Total project cost does not include construction.

Projected Completion Date: October 1999

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$85	\$0	\$85	\$42	\$30	\$13	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Preliminary Permit Studies	New phase.
Licensing & Detail Design	New phase.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
N/A	\$85	N/A	N/A	Oct 99	N/A

Explanation of Changes:

- ▶ New project.

CEB Impact

In FY98 MWRA will hire a consultant to assist with the preliminary study to address economic impacts, potential increased revenues, and the capacity for more power generation.

Valve Replacement

Status: The first construction phase was completed. MWRA continues to replace valves using both in-house staff and with contractor assistance.

Projected Completion Date: June 2006

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$12,026	\$1,146	\$10,880	\$1,195	\$1,368	\$1,225	\$1,394	\$1,225	\$4,473

Changes in Scope Since FY97-99 CIP

Phase	Change
Line Stops FY96	Removed purchase of mainline valves for FY96 since they were either taken from existing inventories or purchased through the CEB.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$12,082	\$12,026	(\$56)	Jun 2006	Jun 2006	None

Explanation of Changes:

- ▶ CIP offset by the slight decrease due to eliminating some valve purchases from the construction and design estimates have been inflated to December 1997 dollars.

CEB Impact

None.

Cathodic Protection of Distribution Mains

Status: MWRA has created a cathodic protection system database with data on 230 existing test stations and completed a pilot program testing all stations and anodes.

Projected Completion Date: June 2001

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	98	99	00	01	02	Beyond FY02
\$221	\$109	\$112	\$48	\$0	\$32	\$32	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Total Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$214	\$221	\$7	Jun 2000	Jun 2001	12 mos.

Explanation of Changes:

- The schedule is extended one year to allow for additional monitoring at MWRA cathodic protection sites to evaluate existing systems.

CEB Impact

None.

Boston Low Service Pipe and Valve Rehabilitation

Status: Design of the Clinton Road and Boylston Street components were substantially completed with construction scheduled to begin next fiscal year. The second phase of construction (Beacon Street lines) is scheduled to begin in 2005.

Projected Completion Date: April 2007

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$25,718	\$1,690	\$24,028	\$791	\$4,075	\$3,415	\$0	\$0	\$15,747

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$24,056	\$25,718	\$1,662	Apr 2007	Apr 2007	None

Explanation of Changes:

- The construction cost changes are primarily a result of new cost estimates and inflation of estimates to December 1997 dollars.

CEB Impact

None.

Rehabilitation of Weston Aqueduct Supply Mains (WASM) 1 and 2

Status: MWRA awarded the planning and design contract for the first phase in May.

Projected Completion Date: May 2008

Current Phase: Planning/Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$33,292	\$41	\$33,251	\$496	\$531	\$7,419	\$7,684	\$99	\$17,022

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Easements	Changed name from land acquisition.
Construction Commonwealth Ave WASM 2	Reduced the rehabilitation of 6,000 linear feet of 60-inch pipe to 5,800 linear feet and moved to WASM 4 Construction Contract 3 to coordinate with the City of Newton Paving. Increased installation of 1,000 linear feet of 48-inch pipe to 1,200 linear feet and moved to Construction Commonwealth Ave & Centre St WASM 1 & 2. This phase has been absorbed by the two above mentioned phases.
Construction - Commonwealth Ave & Centre St Phase A	Added rehabilitation of 1,200 linear feet of 48-inch pipe from the Construction Commonwealth Ave WASM 2 Phase (construction contract 2). Changed the name from Construction Commonwealth Ave WASM 1 & 2 to Construction Commonwealth Ave & Centre St Phase A
Construction Newton & Brighton Phase B	Changed the name from Construction Newton & Brighton to Construction Newton & Brighton Phase B.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$35,728	\$33,292	(\$2,436)	Feb 2008	May 2008	3 mos.

Explanation of Changes:

- The construction cost changes are a result of several factors: (1) moved work to contract 3 of WASM 4 project to correspond with the City of Newton's paving plans, (2) repackaged existing contracts, and (3) inflated all construction estimates to December 1997 dollars.

- The schedule is extended three months to accommodate the repackaged scopes.

CEB Impact

None.

Nonantum Road Pipe Rehabilitation

Status: The Nonantum Road Pipeline project was completed in FY97, and the pipeline returned to service in May 1997.

Projected Completion Date: May 1997

Current Phase: Completed

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$2,136	\$2,136	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$2,026	\$2,136	\$110	Mar 97	May 97	2 mos.

Explanation of Changes:

- The construction cost increased less than 2% from the FY97-99 CIP amount as a result of change orders.

CEB Impact

None.

Warren Cottage Line Rehabilitation

Status: Conceptual design, which will be completed by in-house staff, is scheduled to begin in August 1997.

Projected Completion Date: November 2001

Current Phase: Planning

Expenditure Forecast (in \$000s)

	Projected Payment thru FY97	Remaining Balance	98	99	00	01	02	Beyond FY 02	
Total Cost	\$1,596	\$0	\$1,596	\$0	\$0	\$7	\$1,094	\$495	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$1,485	\$1,596	\$111	Jul 2001	Nov 2001	4 mos.

Explanation of Changes:

- Construction cost estimates were inflated to December 1997 dollars.
- The projected completion date is extended four months with the addition of a concept design phase. Prior CIP budgets did not include all the steps required for design.

CEB Impact

None.

Southern Service Improvements

Status: The design for the Hyde Park Yard Piping is substantially complete, completing the design for the final phase of this project.

Projected Completion Date: August 2000

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$14,056	\$9,032	\$5,024	\$327	\$1,629	\$2,626	\$442	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change\Explanation
Construction - Hyde Park Ave Yard Piping	Deleted this phase since the work is included in the Rehabilitation of Other Pump Stations project.
Construction - Hyde Park Pipeline	Changed installation of 7,500 linear feet of new 30 - to 36-inch pipe to 7,100 linear feet of new 36-inch pipe.
Easements - Hyde Park Pipeline	New phase.
Hyde Park Pipeline Permit/Road Restoration	New phase.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$12,623	\$14,056	\$1,433	Mar 2002	Aug 2000	(19) mos.

Explanation of Changes:

- Construction cost estimates were inflated to December 1997 dollars.
- The overall change in project schedule is a result of removing the Hyde Park Avenue Yard Pipe to a different CIP project.

CEB Impact

Incremental CEB cost in FY99	Description
\$42,000	The new automated pump stations no longer require on-site personnel. However, routine maintenance will need to be performed by work crews traveling from facility to facility. Therefore additional transportation costs will be incurred.

Heath Hill Road Pipe Replacement

Status: MWRA awarded the contract for construction of Sections 19, 58, and 20 in May 1997.

Projected Completion Date: September 2003

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$16,297	\$1,786	\$14,511	\$3,424	\$3,336	\$258	\$277	\$2,916	\$4,300

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction Sections 19, 20, & 58	Deleted work associated with the valve chamber and added approximately 1,100 joint seals.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$14,279	\$16,297	\$2,018	Mar 2003	Sep 2003	6 mos.

Explanation of Changes:

- The contract award for construction of Sections 19, 58 and 20 was \$1.4 million higher than the FY97-99 CIP budget; the cost of rehabilitation of Section 52 was inflated to December 1997 dollars; and change orders to the new construction for Section 52.
- Design revised to address confined space entry concerns and improve constructability in congested streets causing a slight schedule delay.

CEB Impact

None.

Southern Spine Distribution Mains

Status: This project remains in the preliminary in-house planning stage.

Projected Completion Date: November 2009

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	98	99	00	01	02	Beyond FY02
\$38,173	\$0	\$38,173	\$0	\$0	\$58	\$699	\$739	\$36,677

Changes in Scope Since FY97-99 CIP

None.

Changes to Total Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$35,861	\$38,173	\$2,312	Nov 2009	Nov 2009	None

Explanation of Changes:

- Cost increase reflects inflation to December 1997 dollars.

CEB Impact

None.

Southern Extra High - Sections 41, 42, and 74

Status: MWRA awarded the contract for the design of Sections 41, 42 and 74 in February 1997.

Projected Completion Date: February 2002

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$8,358	\$52	\$8,306	\$208	\$209	\$255	\$3,863	\$3,771	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Design/CS/RI and Construction	Changed replacement of 8,300 linear feet of 24-inch pipe on Sections 41 & 42 to 8,000 linear feet; and changed the replacement of 900 linear feet of 24-inch pipe and the rehabilitation of 5,300 linear feet of 24-inch pipe on Section 74 to the replacement of 2,700 linear feet of 24-inch pipe and the rehabilitation of 6,400 linear feet of 20-inch pipe on Section 74.
Easements	Changed sub-phase name from Land.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$2,746	\$8,358	\$5,612	Feb 2002	Feb 2002	None

Explanation of Changes:

- The contract award for design of Sections 41, 42 and 74 was \$1.1 million greater than the FY97-99 CIP budget. In addition, scope enlarged significantly as described above.

CEB Impact

None.

Chestnut Hill Connecting Mains

Status: This project remains in the preliminary in-house planning stage.

Projected Completion Date: December 2007

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$9,041	\$0	\$9,041	\$0	\$194	\$260	\$22	\$90	\$8,475

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Design/CA/RI and Construction	Added work to design and construct the sliplining of the Cochituate Aqueduct. Portions of this work were originally in the New Connecting Mains Shaft 7 to WASM 3 Project.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$3,761	\$9,041	\$5,280	Jan 2006	Dec 2007	23 mos.

Explanation of Changes:

- The increase cost is associated with Cochituate sliplining and an additional 9,000 feet of 48-inch pipe.
- The schedule was extended by two years because of enlarged scope described above.

CEB Impact

None.

Newton Service Improvements

Status: MWRA completed 100% design of Oak Hill Sections 95 and 100 with in-house resources. Construction scheduled is for award in the fall of 1997.

Projected Completion Date: September 1999

Current Phase: Final Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$7,719	\$61	\$7,658	\$3,349	\$3,978	\$331	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$7,455	\$7,719	\$264	May 99	Sep 99	4 mos.

Explanation of Changes:

- ▶ The construction cost estimate for Sections 95 and 100 was inflated based on the actual rather than projected ENR index to December 1996 dollars because it is scheduled for award in FY98.

CEB Impact

None.

Commonwealth Avenue Pump Station Modernization

Status: The bids for the design of Phase 2 were received in March with construction expected to commence in the fall of 1997.

Projected Completion Date: October 1999

Current Phase: Final Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$6,978	\$1,283	\$5,695	\$2,101	\$2,712	\$882	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$7,393	\$6,978	(\$415)	May 99	Oct 99	5 mos.

Explanation of Changes:

- The estimate of Phase 2 construction cost was inflated based on the actual rather than projected ENR index to December 1996 dollars offset by slight decrease in the base cost.

CEB Impact

Incremental Cost in FY00	Description
\$25,000	Estimated cost for preventive maintenance.

Lexington Street Pump Station Rehabilitation

Status: Substantial completion of construction is expected in the fall of 1997.

Projected Completion Date: October 1997

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	98	99	00	01	02	Beyond FY02
\$3,451	\$3,054	\$397	\$397	\$0	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$3,170	\$3,451	\$281	Oct 97	Oct 97	None

Explanation of Changes:

- The project cost increase is associated with change orders required to complete the pump station rehabilitation.

CEB Impact

Incremental Cost in FY99	Description
\$42,000	The new automated pump stations no longer require on-site personnel. However, routine maintenance will need to be performed by work crews traveling from facility to facility. Therefore, additional transportation costs will be incurred.

Rehabilitation of Other Pump Stations

Status: MWRA awarded the design contract for the Belmont, Hyde Park, Brattle Court, Reservation Road, and Spring Street pump station in April.

Projected Completion Date: November 2004

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$13,727	\$482	\$13,245	\$492	\$839	\$1,258	\$1,279	\$3,148	\$6,229

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction	Separated construction into four phases.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$8,646	\$13,727	\$5,081	Sep 2003	Nov 2004	14 mos.

Explanation of Changes:

- ▶ The award for design was \$2.6 million more than the FY97-99 CIP budget primarily because of the addition of interim automation and many other scope changes related to the complexity of individual pump stations. Additionally, the construction costs were increased to account for interim automation and inflated to December 1997 dollars.
- ▶ The schedule has been extended more than one year to allow for the appropriate phasing of the four construction contracts.

CEB Impact

Incremental Cost in FY00	Incremental Cost in FY01	Description
(\$140,000)	(\$140,000)	Reduction of 8 employees due to automation.

Bear Hill Improvements - Section 29 Rehabilitation

Status: This project remains in the preliminary in-house planning stage.

Projected Completion Date: November 2006

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$1,472	\$0	\$1,472	\$0	\$0	\$0	\$0	\$0	\$1,472

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$1,367	\$1,472	\$105	Jan 2007	Nov 2006	(2) mos.

Explanation of Changes:

- Inflation to December 1997 dollars.

CEB Impact

None.

Spot Pond Pump Station Rehabilitation

Status: Substantial completion of construction is scheduled for fall of 1997. Additionally, construction of the suction pipe for Section 99 continues ahead of schedule, with completion expected in the spring of 1998.

Projected Completion Date: December 2000

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$33,182	\$27,628	\$5,554	\$2,318	\$1,539	\$1,062	\$635	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Fells Area Paving	New phase.
Design/CS/RI Fells Reservoir	Now a separate project in the Drinking Water Quality Improvements category.
Construction Fells Reservoir	Now a separate project in the Drinking Water Quality Improvements category.
DEP Permit Fees	Moved to Fells Covered Storage project in the Drinking Water Quality Improvements category.
Design/CA/RI & Construction Spot Pond Construction Field Office	New phases added to the proposed CIP and removed in the final CIP until the North Maintenance Facility site location issues have been resolved and space needs have been resolved.
Construction Tudor Barn	New phase added in the proposed CIP and removed from the final CIP. Staff is working with Massachusetts Historic Commission staff to better define the scope and cost of the project.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$32,416	\$33,182	\$766	Dec 2000	Dec 2000	None

Explanation of Changes:

- Slight project cost increases are related to change orders for the construction of the suction pipe and pump station.

CEB Impact

Incremental Cost in FY99	Description
\$12,000	The new automated pump stations no longer require on-site personnel. However, routine maintenance will need to be performed by work crews traveling from facility to facility. Therefore, additional transportation costs will be incurred

Weston Aqueduct Supply Main (WASM) 4

Status: MWRA awarded construction contract 2 in May.

Projected Completion Date: January 2004

Current Phase: Construction

Expenditure Forecast (in \$000s)

	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
Total Cost	\$2,733	\$43,676	\$4,078	\$10,669	\$6,154	\$4,252	\$7,557	\$10,966

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction - WATC & Master Meters - CP1	Changed 6,233 linear feet of 60-inch mains to 5,800 linear feet of three parallel 60-inch mains. Moved 4,100 linear feet and four master meters to MWWST - Construction Package 8 and combined remaining work with Construction Commonwealth Ave - CP2 Newton.
Construction - Commonwealth Ave - CP2 Newton	Added 100 linear feet of 48-inch and 1,900 linear feet of 60-inch pipe.
Construction - Washington St - CP3 Newton	Added 323 linear feet of 60-inch pipe and added 5,800 linear feet of 60-inch pipe moved from WASM 1 & 2 Rehab Project, rehab of Meters 104 & 105, Nonantum PRV, and relining of 1,600 linear feet of pipe.
Construction Section 15 (Brighton) - CP4	Added cleaning and lining of 800 feet of a 30-inch pipe on the Western Ave. bridge.
Construction MDC Bridge Crossing	Changed 791 linear foot 30-inch steel mains to 774 linear foot 30-inch steel mains.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$41,329	\$46,409	\$5,080	Jan 2004	Jan 2004	None

Explanation of Changes:

- Increased costs are associated with transferring scope from WASM 1 & 2 to this project and revised construction cost estimates based on 30% design offset by the award of construction contract 2 for \$4 million less than the FY97-99 CIP budget.

CEB Impact

None.

Spot Pond Supply Mains - Rehabilitation

Status: This project remains in the preliminary in-house planning stage.

Projected Completion Date: March 2008

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$55,652	\$0	\$55,652	\$898	\$981	\$443	\$360	\$3,344	\$49,626

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Preliminary Design and Design/CA/RI	Changed the name of Preliminary Study to Preliminary Design and combined with the Design/CA/RI phase. Also adjusted and expanded the scope (see below for details).
Construction CP1, CP2 & CP3	Phased breakdown of construction contracts based on prioritization of work as shown in "Scope". Added various pipe segments not previously included as follows: 1,130 linear feet of 64-inch pipe (Section 3); 1,600 linear feet of 48-inch pipe (Section 5); 565 linear feet of 48-inch pipe, 430 linear feet of 36-inch pipe and 530 linear feet of 30-inch pipe (Section 10); 6,900 linear feet of 48-inch pipe (Section 67); 260 linear feet of 64-inch pipe (Section 6A); 6,350 linear feet of 60-inch pipe (Section 12); and 1,000 linear feet of 60-inch pipe (Section 16W, WASM 3). Also changed quantity of pipe for rehabilitation/replacement as follows: East Main changed from 45,200 linear feet of 48-inch pipe (Sections 4, 6, and 7) to 44,650 linear feet; West Main changed from 35,500 linear feet of 48-inch pipe (Sections 9, 11 and 12) to 33,700 linear feet.
Easements CP1, CP2, & CP3	Changed phase name from Land to Easements and separated into three phases.
Equipment Purchase	Deleted.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$42,758	\$55,652	\$12,894	Jan 2009	Mar 2008	(10) mos.

Explanation of Changes:

- The cost changes are a result of the addition of 16W from the Northern Lower Service Pipeline Replacement project, an increase of 2,000 linear feet of pipeline, and the addition of pressure valves.
- Recent project planning has resulted in scope changes which reduced the overall magnitude of the project and shortened the construction schedule by almost one year.

CEB Impact

None.

Northern Low Service Pipeline Replacement

Status: MWRA began preliminary design for the replacement of section 16W in Medford, with construction scheduled to commence in the spring of 1998.

Projected Completion Date: September 1998

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$822	\$221	\$601	\$301	\$300	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Design/CS/RI & Construction	Reduced scope to replacement of approximately 500 linear feet of pipe to address urgent rehabilitation/replacement of a segment of the pipe prone to frequent leaks. The Design/CS/RI for this work will be done by in-house staff. The remaining pipeline rehabilitation/replacement will be done as part of the Spot Pond Supply Mains project.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$1,710	\$822	(\$888)	Apr 2003	Sep 98	(55) mos.

Explanation of Changes:

- The reduction in design cost is a result of the use of in-house staff to complete the design phase. The reduction in construction cost is a result of moving connecting valves and associated pipe to the Spot Pond Supply Main project.
- The schedule is accelerated by almost five years due to the seriousness of the pipeline conditions and leaks and the transfer of long term construction to the Spot Pond supply main project.

CEB Impact

None.

Water Main Relocation in Chelsea River

Status: MWRA awarded the design contract for the relocation of the water main in the Chelsea River in May.

Projected Completion Date: August 2000

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$1,097	\$0	\$1,097	\$210	\$230	\$600	\$57	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Planning/Design/CA/RI & Construction	Removed work associated with the second crossing (Section 38).

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$1,097	\$1,097	\$0	Nov 2001	Aug 2000	(15) mos.

Explanation of Changes:

- The schedule is accelerated by more than one year due to the reduction in scope.

CEB Impact

None.

Northern Low Service Rehabilitation - Sections 8 and 57

Status: This project remains in the preliminary in-house planning stage.

Projected Completion Date: November 2006

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$11,181	\$0	\$11,181	\$0	\$0	\$0	\$0	\$0	\$11,181

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$10,515	\$11,181	\$666	Mar 2007	Nov 2006	(4) mos.

Explanation of Changes:

- Cost increase adjustment for inflation to December 1997 dollars.

CEB Impact

None.

New Connecting Mains - Shaft 7 to WASM 3

Status: MWRA has more clearly defined the requirements of this project and divided the construction work among four contracts.

Projected Completion Date: March 2012

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$49,902	\$575	\$49,327	\$0	\$494	\$494	\$494	\$665	\$47,180

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Design/CA/RI, Construction, & Easements	Changed from one Design/CA/RI contract and two Construction contracts and divided Easements into four different contracts.
Design/CA/RI & Construction - North Segment & Intermediate High	North Segment: Reduced length by 480 linear feet. Intermediate Sections: Increased cleaning and lining of Section 60 by 2,943 linear feet. Decreased cleaning and lining of Sections 59 (between Belmont Pump Station and Section 60) by 320 linear feet and changed the cleaning and lining of Section 59 (between Section 25 and the Belmont Pump Station) to replacement of 7,772 linear feet 20-inch diameter pipeline with 24-inch pipeline. Deleted 4,900 linear feet of new 20-inch pipe on Section 25.
Design/CA/RI & Construction - South Segment	South Segment: Added 345 linear feet of new 24-inch pipe and 350 linear feet of 20-inch pipe. Reduced the total length of cleaning and lining by 2,040 linear feet for Sections 23, 24, and 47.
Design/CA/RI & Construction - West Segment	West Segment: Increased the new 36-inch pipe by 550 linear feet, deleted 1,700 linear feet of new 16-inch pipe.
Design/CA/RI & Construction - Northeast Segment	Northeast Segment: Deleted 6,000 linear feet of new 24-inch pipe. Added cleaning and lining of 17,200 linear feet of pipe on Sections 18 (16 to 20-inch), 50 (20-inch), and 51 (48-inch).

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$59,860	\$49,902	(\$9,958)	Jan 2007	Mar 2012	62 mos.

Explanation of Changes:

- ▶ The project cost decreased based on more defined construction requirements outlined in the changes to scope.
- ▶ The schedule was extended by five years, based on a reassessment of construction phasing.

CEB Impact

None.

Northern High Service - Replacement Section 26

Status: The project components have been combined with the Northern High Service Revere & Malden Pipeline Improvements. This project will be eliminated from the FY99-01 CIP.

Projected Completion Date: N/A

Current Phase: N/A

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
All phases	Combined with Northern High Service Revere & Malden Pipeline Improvements.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$5,056	\$0	\$5,056	N/A	N/A	N/A

Explanation of Changes:

N/A

CEB Impact

None.

Northern High Service - Connecting Mains to Section 91

Status: MWRA approved the preliminary design in January and expects to receive the 60% design in the fall of 1997.

Projected Completion Date: October 2002

Current Phase: Design

Expenditure Forecast (in \$000s)

	Projected Payment thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
Total Cost	\$4,179	\$371	\$3,808	\$136	\$154	\$621	\$1,240	\$1,240

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction	Change 3,800 linear feet of new 24-inch pipe to 3,800 linear feet of new 16-inch pipe. Eliminated 5,700 linear feet of new 36-inch diameter pipeline.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$6,216	\$4,179	(\$2,037)	Oct 2002	Oct 2002	None

Explanation of Changes:

- Project cost decrease due to removal of the connection main from Section 91 to Section 71.

CEB Impact

None.

Northern High Service Improvements - Lynn Pipeline

Status: Design was substantially complete in October 1996 and construction is expected to begin in December 1997, for the final construction phase.

Projected Completion Date: November 1998

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$14,457	\$11,765	\$2,692	1,574	\$1,118	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$14,065	\$14,457	\$392	Jul 98	Nov 98	4 mos.

Explanation of Changes:

- The cost estimate from the final construction phase was inflated to December 1997 dollars.

CEB Impact

None.

Northern High Service - Section 27 Improvements

Status: This project remains in the preliminary planning stage.

Projected Completion Date: November 2001

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$2,955	\$0	\$2,955	\$0	\$10	\$0	\$1,963	\$982	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$2,775	\$2,955	\$180	Feb 2001	Nov 2001	9 mos.

Explanation of Changes:

- Cost increase reflects adjustment for inflation to December 1997 dollars.
- Schedule change reflects reassessment of design and construction durations for current scope.

CEB Impact

None.

Northern High Service - Revere/Malden Pipeline Improvements

Status: The conceptual design report for the construction of Section 53, one of the two final construction phases, was issued in April.

Projected Completion Date: November 2003

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$30,521	\$23,637	\$6,884	\$140	\$5	\$256	\$2,593	\$216	\$3,674

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction Eastern Ave Sidewalk Restoration	New phase.
Design & Construction Revere Section 53 & Section 26	Changed the replacement of 6,000 linear feet of 36-inch to replacement of 1,500 linear feet of 30-inch and the rehabilitation of 4,500 linear feet of 30-inch pipe. Added replacement of 5,825 linear feet of 12-inch pipe along Section 26. This work was moved from Northern High Service - Replacement Section 26 Revere.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$29,126	\$30,521	\$1,395	Jun 2002	Nov 2003	17 mos.

Explanation of Changes:

- The cost increase is due to the addition of 5,825 linear feet of pipe along section 26.
- The schedule has been extended approximately 1 ½ years because of above mentioned scope change.

CEB Impact

None.

Northern High Service - Pipeline Rehabilitation

Status: This project remains in the preliminary planning stage.

Projected Completion Date: November 2006

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$14,733	\$0	\$14,733	\$0	\$0	\$0	\$0	\$138	\$14,595

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$13,861	\$14,733	\$872	Dec 2009	Nov 2006	(37) mos.

Explanation of Changes:

- Cost increase reflects adjustment for inflation to December 1997 dollars.
- The schedule was accelerated by three years based on a reassessment of the scope and schedule. This schedule will be reassessed again in the FY99-01 CIP process.

CEB Impact

None.

Northern Extra High Service - New Pipelines

Status: 60% design was completed in April with construction expected to begin in March 1999.

Projected Completion Date: June 2000

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$3,293	\$227	\$3,066	\$76	\$791	\$2,199	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Construction	Combined two construction phases into one. Changed replacement of 2,600 linear feet of 30-inch pipe to 24-inch pipe.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$3,255	\$3,293	\$38	Jun 2000	Jun 2000	None

Explanation of Changes:

- Cost increase reflects adjustment for inflation to December 1997 dollars.

CEB Impact

None.

Hydraulic Model Update

Status: This project remains in the preliminary in-house planning stage.

Projected Completion Date: July 2000

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$326	\$0	\$326	\$0	\$157	\$156	\$13	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$300	\$326	\$26	Jan 2000	Jul 2000	6 mos.

Explanation of Changes:

- Cost increase reflects adjustment for inflation to December 1997 dollars.
- The schedule was delayed 6 months based on a reassessment of resources and time necessary to complete the scope.

CEB Impact

None.

Central Monitoring System

Status: New equipment purchases were completed for Norumbega Reservoir, Commonwealth Pump Station, and Shaft 9A chlorine residuals monitoring.

Projected Completion Date: August 1999

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$12,615	\$9,314	\$3,301	1,808	\$1,348	\$145	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$12,515	\$12,615	\$100	Aug 99	Aug 99	None

CEB Impact

Incremental CEB Cost in FY99	Incremental CEB Cost in FY00	Description
\$131,000	\$20,000	Additional cost for three new vehicles for new SCADA crews, the connection of telephone data lines, and additional maintenance agreements with Oracle for SCADA equipment.

Rehabilitation of Existing Facilities

Status: Contracts for underground tank replacement and numerous smaller facilities maintenance projects were awarded throughout the year.

Projected Completion Date: September 2007

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payment thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$11,487	\$3,289	\$8,198	2,652	\$3,320	\$2,033	\$0	\$0	\$193

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$9,083	\$11,487	\$2,404	Sep 2007	Sep 2007	None

Explanation of Changes:

- The project costs increased slightly due to change order activity.

CEB Impact

None.

0

Distribution System Facilities Mapping

Status: In the spring of 1997, MWRA purchased data from Boston Edison at a cost significantly less than the cost to develop such data in-house or by survey.

Projected Completion Date: August 1999

Current Phase: Design

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$1,048	\$487	\$561	\$260	\$259	\$42	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Planning/Design	Added development of base land data for towns not in the Boston Edison service area (data purchase phase) and which have no plans to develop the data on their own.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$748	\$1,048	\$300	Aug 98	Aug 99	12 mos.

Explanation of Changes:

- The project costs increased to allow for the development of land based data not included in Boston Edison's data.

CEB Impact

None.

Local Water Infrastructure Rehabilitation Assistance Program

Status: In March, MWRA issued the guidelines for participation in the Local Water Infrastructure Rehabilitation Assistance Program. The first distributions to requesting communities occurred in August 1997.

Projected Completion Date: June 2004

Current Phase: Grant/Loan distribution

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$7,500	\$0	\$7,500	\$20,000	\$7,000	(\$4,500)	(\$4,500)	(\$4,500)	(\$6,000)

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$0	\$7,500	\$7,500	Dec 2004	Jun 2004	(6) mos.

Explanation of Changes:

- ▶ The FY97-99 CIP assumed a loan program rather than a grant/loan program.
- ▶ Schedule change reflects program completion at end of 2004 fiscal year rather than calendar year.

CEB Impact

None.

North Maintenance Facility

Status: MWRA staff continue to study options for siting and construction of the maintenance of the Central Distribution and Maintenance Facility.

Projected Completion Date: October 2002

Current Phase: Planning

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$18,520	\$517	\$18,003	\$0	\$4,385	\$1,050	\$4,779	\$5,323	\$2,466

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$18,058	\$18,520	\$462	Oct 2001	Oct 2002	12 mos.

Explanation of Changes:

- Cost increase adjustment for inflation to December 1997 dollars.
- The one year schedule delay results from difficulty in locating a suitable site for the facility.

CEB Impact

None.

Fore River Staging Area

Status: Final rehabilitation for MWRA use is near completion. Purchase and sale of a portion of the site to Mass Heavy Industries is anticipated in fall 1997.

Projected Completion Date: November 1997

Current Phase: Construction

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$10,083	\$9,853	\$230	\$230	\$0	\$0	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$9,268	\$10,083	\$815	Nov 97	Nov 97	None

Explanation of Changes:

- Cost increase primarily due to the moving the FRSA Upland Phase II design from the Boston Harbor Project to the Fore River Staging Area project.

CEB Impact

None.

Technical Assistance

Status: MWRA continues to use technical assistance contracts in support of various CIP projects.

Projected Completion Date: November 2000

Current Phase: On-going

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY 02
\$3,875	\$0	\$3,875	\$1,308	\$1,308	\$1,259	\$0	\$0	\$0

Changes in Scope Since FY97-99 CIP

None.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$5,138	\$3,875	(\$1,263)	Aug 1999	Nov 2000	15 mos.

Explanation of Changes:

- Cost decrease based on revised assumptions for technical assistance.
- Schedule extension based on award of additional contracts or execution of additional one year options for various contracts.

CEB Impact

None.

Business Systems Plan

Status: MWRA continues upgrading technology in support of the our business and operations, to ensure cost effective use of staff resources.

Projected Completion Date: June 2001

Current Phase: Implementation of Phase I and II

Expenditure Forecast (in \$000s)

Total Cost	Projected Payments thru FY97	Remaining Balance	FY 98	FY 99	FY 00	FY 01	FY 02	Beyond FY02
\$5,877	\$2,254	\$3,623	\$1,360	\$800	\$463	\$500	\$500	\$0

Changes in Scope Since FY97-99 CIP

Phase	Change/Explanation
Phase III	Provided funding for a previously unfunded phase for improvements FY99-01.

Changes to Project Cost and Schedule

Total Project Cost (\$000s)			Schedule: Projected Completion Date		
FY97	FY98	Change	FY97	FY98	Change
\$4,677	\$5,877	\$1,200	Jun 2001	June 2001	None

Explanation of Changes:

- Cost increase to fund Phase III.

CEB Impact

None.

SOURCE OF FUNDS (\$'000)

	State Construction Grant Fund	Federal Construction Grant Fund	Special Federal Grants	State Revolving Loan Fund	Other	Bonds/Cash Financing	TOTAL
WASTEWATER							
Quincy Pump Facilities				\$1,979		\$18,039	\$20,018
Braintree-Weymouth Relief				23,304		156,821	157,149
New Neponset Valley Relief	48	240				7,248	31,439
Upper Neponset Valley Relief	887					2,998	2,998
Wellesley Extension Sewer						23,410	72,380
Framingham Extension Sewer	30,115	18,955		19,700		26,361	47,403
Cummingsville Replacement Sewer	1,142					4,430	4,430
North Metropolitan Trunk Sewer				13,500		1,731	15,231
Siphon Structure Rehab.						5,661	5,661
Wastewater Metering						400	400
Ashland Extension Sewer						1,005	1,005
System Master Plan Interceptors						19,734	19,734
Corrosion and Odor Control Study						685	685
Wastewater Facil. Rehabilitation						3,551	3,551
West Roxbury Tunnel						323	323
Wastewater Central Monitoring						600	600
Remote Headworks Rehab.						3,568	3,568
BTIP Performance Certification	9,657			638,246		1,550	1,550
Deer Island Primary & Secondary	18,086	12,148		340,419		2,107,380	3,095,902
Water Transportation Facilities			5,055	17,049		197,512	249,350
As Needed Design/CS/RI						500	500
Construction Services						1,500	1,500
On-Site Generation of Sodium Hypo						15,475	15,475
DI Coastal Protection						0	0
DI Plant Wide System						250	250
DI Dry Storage Warehouse						4,200	4,200
Clinton Landfill Liner Repair						400	400
Residuals Management Facilities	354			11,399		40,103	51,856
CSOs	1,122			1,370	23,465	443,958	469,915
Infiltration/Inflow Local Assist.						15,937	15,937
WATERWORKS SYSTEM IMPROVEMENTS							
Walnut Hill Water Treatment Plant						\$411,817	\$411,817
Quabbin Water Treatment Plant						5,708	5,708
Watershed Protection						8,602	8,602
Nonimmbga Covered Storage						111,133	111,133
Nash Hill Covered Storage						14,929	14,929
Blue Hills Covered Storage						27,700	27,700
Bear Hill Covered Storage						5,419	5,419
Fells Covered Storage						16,020	16,020
Metrowest Tunnel	24					623,039	623,063
Dam Control Valve Replacement						1,870	1,870
Sluice Gate Rehabilitation						7,599	7,599
Metropolitan Tunnel Loop						222	222
Chicopee Valley Interconnections						4,150	4,150
Winsor Dam Hydroelectric						85	85

SOURCE OF FUNDS (\$000)

	State Construction Grant Fund	Federal Construction Grant Fund	Special Federal Grants	State Revolving Loan Fund	Other	Bonds/Cash Financing	TOTAL
Valve Replacement						12,026	12,026
Cathodic Protection of Dist. Mains						221	221
Boston Low Service Pipe/Valve						25,604	25,718
W/ASM 1 & 2 Rehabilitation						33,292	33,292
Nonanum Rd. Pipe Replacement						2,136	2,136
Warren Cottage Line Rehab	36					1,560	1,596
Southern Service Improvements						14,036	14,036
Heath Hill Road Pipe Replacement						16,297	16,297
Southern Saine Distribution Mains	128					38,045	38,173
Southern Extra High-Secs 41, 42, & 74						8,358	8,358
Chestnut Hill Concreting Mains	66					8,975	9,041
Newton Service Improvements	36					7,683	7,719
Conn Avenue Pump Modernization						6,978	6,978
Lexington St. Pump Station Rehab						3,451	3,451
Rehab. of Other Pump Stations						13,727	13,727
Bear Hill Improvements - Sec 29 Rehab.	43					1,429	1,472
Spot Pond Pump Station Rehab.	33					33,149	33,182
Weston Aqueduct and Supply Main 4						46,409	46,409
Spot Pond Supply Mains-Rehab.	119					55,533	55,652
Northern Low Serv. Pipeline Replace.						822	822
Water Main Reloc-Chelsea River	1,097					0	1,097
Northern Low Service-Secs 8 & 57						11,157	11,181
Concreting Main-Shaft-N/ASM 3	14					49,888	49,902
Northern High Serv.-Sec 26 Replace.						0	0
Northern High Serv.-Sec 91	38					4,141	4,179
Northern High Serv.-Lynn Pipeline						14,457	14,457
Northern High Serv.-Sec 27 Improv.	14					2,941	2,955
Northern High Serv.-Revere/Malden						30,521	30,521
Northern High Serv.-Pipeline Rehab	14					14,719	14,733
Northern Extra High Service	52					3,241	3,293
Hydraulic Model Update						326	326
Central Monitoring System						12,615	12,615
Rehab of Existing Facilities						11,487	11,487
Distribution Systems Fac. Mapping						1,048	1,048
Local Water Infrastructure Rehab.						7,500	7,500
BUSINESS AND OPERATIONS							
SUPPORT						\$18,520	\$18,520
North Maintenance Facilities						10,083	10,083
Fore River Staging Area						3,875	3,875
Technical Assistance Contracts						5,877	5,877
Business Systems Plan							
TOTAL	\$63,263	\$31,343	\$656,070	\$439,416	\$0	\$4,876,170	\$6,066,262



Capital Expenditure Forecasts

Supplement to the

FY98-00 Capital Improvement Program

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About This Document

Capital expenditure forecasts, sometimes referred to as project cash flows, are presented in this supplement to the FY98-00 Capital Improvement Program. Capital project narratives and summary cost and schedule tables are presented in the primary CIP document. Expenditure forecasts are accrual based. As a result, projected expenditures are reported based on when services are expected to be rendered.

Projects appear in this report in the same order they appear in the primary CIP document, organized by capital program. Grant and loan receipts for various projects and programs appear at the end of each capital program section.

The following presents a description of each column in the expenditure forecast spreadsheets which comprise this document:

Project Names	Project names are presented in the first column of the expenditure forecast in capital letters.
The Five Digit and Four Digit Contract Number	Under each project name, you will find five and four digit numbers for each project phase. These numbers are assigned by the Rates and Budget Department prior to the contract award.
	The five digit number represents the MWRA Financial Management System's (FMS) subphase number. Project budgets and expenditures are tracked by this account number.
	The four digit number is a manually assigned contract identifier that is entered into the MWRA Purchasing and Stores Inventory (PSI) system as the contract reference number when the contract is executed. This reference number is used to access contract information such as the award amount, change order activity, and processed invoices.
Project Phase	Next to the four digit contract number, you will find the name of the project phase. Project phases are typically defined components of projects like study, design, construction, or related services.
Project Participant	The project participant is the consultant, designer, or the contractor(s) who has been awarded the contract for the project phase. Non-awarded contracts are identified by "TBS" (to be selected).
Notice to Proceed and Substantial Completion	Project Schedules are identified by two key milestones. These milestones indicate the expected start and end dates for contract activity.
Total Contract Amount	The Total Contract Amount represents a contract's upset limit. For unawarded contracts, the contract amount is based on a cost estimate. For awarded contracts, this amount includes the award amount and any change orders, amendments, and purchase orders accounted for prior to finalizing the budget.
Projected Payments through FY97	The Projected Payments through FY97 column presents total expenditures since the inception of the contract. Excluding the forecast used for the last quarter of FY97, the amount is generated through FMS.
Remaining Balance 6/30/97	Remaining Balance 6/30/97 is calculated by subtracting Projected Payments through FY97 from the Total Contract Amount . This amount is then spread in the columns to the right, from FY98 to Beyond FY2002.

**Expenditure
Forecasts**

The remaining columns in the spreadsheet contain projections for capital spending by project phase across fiscal years 1998 through 2002, and then beyond FY2002. Forecasts are divided by quarters for FY98, and presented annually for fiscal years 1999 through 2002. Expenditure forecasts for the fiscal years beyond 2002 are accumulated in the last column.

Quarterly expenditure forecasts for the first fiscal year of the budget, FY98, are displayed. For FY99 and FY00, annual amounts are shown.

THREE-YEAR CAPITAL IMPROVEMENT SUMMARY BY MAJOR CATEGORY

FINAL CAPITAL IMPROVEMENT PROGRAM EXPENDITURE FORECAST FY 1998-2000 (\$000)															
	Total Contract Amount	Previous Payments Thr. F'97	Remaining Balance 6/30/97	JUL-SEP 1997		OCT-DEC 1997		JAN-MAR 1998		APR-JUN 1998		FY98	FY99	FY2000	3-YEAR TOTAL
				7/1	8/1	9/1	10/1	11/1	12/1						
Boston Harbor Project	\$3,345,752	\$2,662,680	\$483,072	\$67,395	\$58,825	\$40,774	\$50,638	\$217,632	\$178,048	\$80,360	\$476,040				
Wastewater System Improvements	1,099,115	384,825	715,090	22,007	19,526	17,282	15,143	73,958	52,699	96,126	222,783				
Waterworks System Improvements	1,750,139	239,590	1,510,549	34,919	37,089	42,680	51,252	165,940	188,600	190,889	545,429				
Business & Operations Support	38,355	12,624	25,731	667	767	667	797	2,898	6,493	2,772	12,163				
Contingency	293,363	0	293,365	12,213	12,213	12,213	12,210	48,849	62,904	39,342	151,095				
TOTAL	\$6,527,526	\$3,499,719	\$3,027,807	\$137,201	\$128,420	\$113,616	\$130,040	\$509,277	\$488,744	\$409,489	\$1,407,510				

TEN-YEAR CAPITAL IMPROVEMENT SUMMARY BY MAJOR CATEGORY

FINAL CAPITAL IMPROVEMENT PROGRAM EXPENDITURE FORECAST FY 1998-2007 (\$000)													
	FY98	FY99	FY2000	FY2001	FY2002		FY2003	FY2004	FY2005	FY2006	FY2007	10-YEAR TOTAL	
					7/1	8/1							
Boston Harbor Project	\$217,632	\$178,048	\$80,360	\$7,032	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$483,072
Wastewater System Improvements	73,958	52,689	96,126	127,988	134,418	73,163	60,558	38,672	31,118	16,887			705,587
Waterworks System Improvements	163,940	188,600	190,889	225,511	233,602	217,555	106,989	52,992	44,129	38,674			1,464,681
Business & Operations Support	2,898	6,493	2,772	5,279	5,823	2,466	0	0	0	0	0		25,731
Contingency	48,849	62,904	39,342	38,868	39,044	29,510	15,489	7,940	6,491	4,928			293,365
TOTAL	\$509,277	\$488,744	\$409,489	\$404,678	\$412,887	\$322,494	\$183,036	\$99,604	\$81,738	\$60,489	\$2,972,436		

**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007**
(\$000)

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**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST - FY 1998-2007**
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-SEP 1997		OCT-DEC 1997		JAN-MAR 1998		APR-JUN 1998		FY98		FY99		FY2000		FY2001		FY2002		BEYOND FY2002	
							1997	1998	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998
NEW NEPONSET VALLEY RELIEF SEWER																										
10062	5380 Facilities Plan	LEA	Apr-93	\$594	\$594	\$0	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
10063	5381 Env/Supp. Fac Plan	LEA	Jan-98	\$626	\$626	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10064	5382 Design/C/I	Fay,Spofford	Feb-98	\$34,935	\$4,096	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309
10065	5383 Land Acquisition	Various	Nov-93	\$845	491	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
10066	5378 Consultant-Milton	Milton C.C.	Dec-93	\$10,75	378	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
10076	5377 Consultant-Canton	Canton C.C.	Jul-97	\$162	135	27	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
10087	5385 Construction 1	Wescott Constr	Sep-93	\$5,203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10088	5380 Construction 2	D&C Construction	Dec-93	\$9,94	32,547	2,547	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10089	5384 Construction 3	P. Giacco & Sons	Apr-94	\$6,264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10090	5385 Construction 4	J.d. Amico	Jan-94	\$2,958	2,958	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10091	5389 Construction 5	P. Calacca Corp	Dec-94	\$9,550	9,550	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
10092	5386 Shubin Detham St	Thermo Water	Nov-90	\$1,000	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10074	5379 Power Line	NE Telephone	Apr-88	\$189	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10073	5982 Technical Assistance	Various	Apr-98	\$31,439	\$30,157	\$1,252	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77	\$77
Project Total:																										
UPPER NEPONSET VALLEY RELIEF SEWER																										
10235	6030 Planning/Design/CSIR	TBS	Jul-2001	Jun-2003	\$2,998	\$0	\$2,998	\$0	\$2,998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Project Total:																										
WELLESLEY EXTENSION REPLACEMENT SEWER																										
10091	5345 Study	SEA	Oct-91	\$324	\$324	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10090	5346 Design/ER/CSIR	SEA	Dec-94	\$8,630	\$8,630	8,094	536	536	536	536	536	536	536	536	536	536	536	536	536	536	536	536	536	536	536	536
10081	5347 Land Acquisition	Various	Aug-98	\$4,041	\$4,041	3,169	872	872	872	872	872	872	872	872	872	872	872	872	872	872	872	872	872	872	872	872
10082	5348 Consultant-Needham	Needham C.C.	Sep-99	\$270	\$270	164	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
10083	5344 Consultant-Bedham	Dedham C.C.	Aug-91	\$120	\$120	62	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
10084	5342 Consultant-Dover	Dover C.C.	Sep-91	\$15,20	\$15,20	15	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
10085	5349 Construction 1	J.F. White	Jun-91	\$15,069	\$15,069	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10086	5351 Construction 2	Modern Constr.	Aug-89	\$5,087	\$5,087	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10087	5344 Construction 3	P. Giacco	Mar-90	\$6,927	\$6,927	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10088	5340 Construction 4	Modern Constr.	Nov-89	\$4,821	\$4,821	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10089	5431 Construction 5	FED Corp	Apr-92	\$5,387	\$5,387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10090	5432 Construction 6	Institution of N.E.	Dec-91	\$2,068	\$2,068	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10283	6184 Construction 7	TBS	Jan-96	\$12,544	\$12,544	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10086	5355 Construction 8	S.G. Primey & Assoc.	Jun-2001	\$6,340	\$6,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10289	6076 EIC	TBS	Dec-95	\$404	\$404	65	339	339	339	339	339	339	339	339	339	339	339	339	339	339	339	339	339	339	339	339
10289	6078 Legal	TBS	Feb-97	\$230	\$230	226	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
10270	6079 Public Relations	TBS	Mar-97	\$20,244	\$20,244	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10093	5983 Technical Assistance	Various	Sep-95	\$193	\$193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Total:																										

**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007**
(\$'000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru: FY197	Remaining Balance						FY2001	FY2002	BEYOND FY2002
						JUL-SEP '97	OCT-DEC '97	JAN-MAR '98	APR-JUN '98	FY98	FY99			
FRAMINGHAM EXTENSION RELIEF SEWER														
10098 5318 Fac Plan Update/EIR	Anderson Nichols Various	Feb-90 Jun-91	Jul-90 Dec-2000	\$1,402 \$1,320	\$1,402 \$702	\$0	5	25	55	\$0	0	200	363	\$0
10100 5321 Land Acquisition	Anderson Nichols J. D'Amico, Inc.	Jul-90 May-96	Oct-2000 May-97	\$4,645 \$7,362	1,125 1,070	100 107	100 107	400 1,107	400 1,236	350 3,211	0	200 3,211	175 3,211	0
10101 5319 Design/C/I	Zanone, Inc.	May-96	Jan-98	\$6,106	4,870	1,236	800	400	36	1,236				0
10102 5320 Construction 1	Westcott Construction	May-96	Apr-98	\$7,199	3,988	2,000	800	411	0	3,988				0
10103 5322 Construction 2	Instiulorm of NE	Jun-94	Mar-95	\$4,810	4,810	0	13,287	0	0	13,287				0
10104 5323 Construction 3	TBS	Jan-99	Sep-2000	\$13,287	0	0	0	0	0	0	3,287	7,000	3,000	0
10106 5825 Construction 4	Various	Feb-90 May-2000	\$147 \$47,403	\$20,584 \$26,519	\$1,900 \$1,412	\$572	\$125	0	0	\$6,009	\$5,637	\$7,200	\$3,376	\$363
10107 5342 Construction 5														
10108 5954 Technical Assistance														
10109 5342 Technical Assistance														
Project Total:														
CUMMINGSVILLE REPLACEMENT SEWER														
10217 5826 Fac Plan/EIR	Weston&Sampson	Jun-92	Jul-95	\$605	\$605	\$0	0	0	0	\$0	0			
10218 6082 Design/C/I	TBS	Dec-2000	\$544	0	644	0	30	40	0	200	90	40	175	\$69
10284 6185 Land Acquisition	TBS	Nov-98	\$13	0	13	0	0	0	0	0	0	0	2,225	\$93
10285 5165 Construction	TBS	Mar-2001	\$3,68	0	3,68	0	0	0	0	0	0	0	0	0
Project Total:														
NORTH METROPOLITAN TRUNK SEWER - PHASE II														
10240 5329 Design	In-house	Dec-92	Nov-95	\$0	\$0	10,158	3,500	1,200	550	\$70	1,408			
10241 5339 Construction	United Gunite Constr.	Aug-96	Jul-98	\$15,231	\$5,073	\$10,158	\$3,500	\$1,200	550	\$8,750	\$4,408	\$0	\$0	\$0
Project Total:														
SIPHON STRUCTURE REHABILITATION														
10253 6017 Planning	Anderson-Nichols	Jan-96	Jun-98	\$841	\$495	\$346	\$63	\$103	\$100	\$50	\$316	\$0	\$0	0
10254 6224 Design/C/I	TBS	Dec-2000	\$1,100	0	1,100	0	0	0	0	0	0	420	240	440
10254 6225 Construction	TBS	Aug-2002	\$3,000	0	3,400	0	0	0	0	0	0	1	1	3,400
10255 6226 Legal	TBS	Oct-98	\$5	0	5	0	1	1	1	1	0	0	1	0
10257 6227 Public Relations	TBS	Jun-97	Jun-2003	\$5	0	5	1	1	1	1	0	1	1	1
10280 6185 Land Easement	TBS	Apr-99	Feb-2002	\$310	0	310	10	10	10	10	150	150	150	0
Project Total:														

**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007**
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru. FY97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002	
WASTEWATER METERING SYSTEM UPGRADE																	
10271 6806 Design In-house	TBS	Oct-94	Sep-96	\$10	\$0	\$10											\$0
10272 6801 Construction	TBS	Apr-96	Dec-98	\$390	60	\$30	75	75	75	\$10	\$0					0	
Project Total:				\$400	\$60	\$340	\$85	\$75	\$75	\$310	\$30	\$0	\$0	\$0	\$0	\$0	
ASHLAND EXTENSION SEWER																	
10286 6187 Planning/Design	TBS	Sep-98	Jun-2003	\$1,000	\$0	\$1,000											
10297 6228 Land Acquisition	TBS	Nov-98	Mar-2004	\$35	0	\$5											
Project Total:				\$1,005	\$0	\$1,005	\$5	\$0	\$0	\$0	\$5	\$0	\$200	\$350	\$300	150	
SYSTEM MASTER PLAN																	
INTERCEPTORS																	
10287 6198 Planning/Design	TBS	Sep-98	Oct-2003	\$2,722	\$0	\$2,722											
10288 6189 Mystic Valley Sewer Sct. 153	TBS	May-2005	May-2007	\$1,026	0	1,026											822
10289 6190 Revere Branch Sct. 62	TBS	May-2005	May-2007	\$3,086	0	3,086											1,026
10290 6191 Neponset Valley Sct. 1-5,21	TBS	May-2005	May-2007	\$8,338	0	8,338											3,088
10291 6192 Cambridge Branch 23-25	TBS	May-2005	May-2007	\$3,742	0	3,742											8,336
10292 6193 Malden Branch Sct. 65 & 66	TBS	May-2005	May-2007	\$22	0	822											3,742
Project Total:				\$19,734	\$0	\$19,734	\$0	\$0	\$0	\$0	\$0	\$0	\$250	\$550	\$550	822	
CORROSION AND ODOR CONTROL STUDY																	
10279 6137 Planning/Study	TBS	Jan-97	Jan-99	\$685	\$142	\$515	\$203	\$72	\$57	\$47	\$379	\$164					
Project Total:				\$685	\$142	\$515	\$203	\$72	\$57	\$47	\$379	\$164	\$0	\$0	\$0	\$0	
WASTEWATER FACILITIES REHABILITATION																	
10281 6166 Inventory and Evaluation	TBS	Nov-97	Feb-2000	\$1,667	\$0	\$1,667											
10288 6229 Design and Construction	TBS	Oct-2000	Oct-2006	\$1,884	0	1,884											50
Project Total:				\$3,551	\$0	\$3,551	\$0	\$0	\$200	\$250	\$450	0	\$11,000	\$117	\$700	200	634

**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007**
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru F1997	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002	
WEST ROXBURY TUNNEL																	
10299 6230 Inspection	TBS	Apr-98	Sep-98	\$262	\$0	\$262					\$50	\$50				\$0	
10300 6231 Engineering Report	TBS	Feb-98	May-98	\$61	0	61					0					0	
Project Total				\$123	\$0	\$123					\$50	\$50	\$273	\$0	\$0	\$0	
WASTEWATER CENTRAL MONITORING																	
10301 6232 Planning	TBS	Nov-97	Nov-98	\$600	\$0	\$600					\$50	\$150	\$175	\$375	\$225		
Project Total											\$50	\$150	\$175	\$375	\$225	\$0	
FINAL PAYMENTS & RELEASE OF RETAINAGE																	
10134 5360 Design - East Wastewater Treatment	Metcalf & Eddy				\$1,976	\$2,181	(\$205)	(\$205)								\$0	
10011 5359 Study/Design - Metering	Whitman & Howard				1,337	1,219	118	118								0	
10014 5395 Construction 3 - Metering					984	984	0	0								0	
10016 5301 Purchase - Metering					15	15	0	0								0	
10015 5464 Examsnts - Metering					2	2	0	0								0	
10017 5415 Printing					0	0	0	0								0	
10135 5361 RI - East Boston					4,075	4,075	0	0								0	
10140 5366 Const-NH Met Saver					5,747	5,747	0	0								0	
10152 5355 Design/RI - Charlestown	CDM				3,772	3,772	0	0								0	
10153 5357 Constr - Charlestown	White Contracting				25,274	25,274	0	0								0	
10156 5356 Haz Mat Disposal - Charles.	3,798	3,798			367	367	0	0								0	
10160 5351 Hazardous Waste NOR	ENSR Consulting				131	131	0	0								0	
10161 5827 Litigation Ass't - Charlestown	ERM New England				\$47,778	\$47,765	(\$87)	\$0	\$0	\$0	(\$87)	\$0	\$0	\$0	\$0	\$0	
Project Total:																	
SUBTOTAL: INTERCEPTION & PUMP.				\$430,545		\$187,755	\$242,762	\$9,478	\$8,775	\$4,137	\$6,033	\$26,423	\$11,898	\$41,299	\$46,520	\$59,654	\$49,298

WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007

(\$'000)

PROJECT	Project Participants	Notice to Proceed	Substantially Complete	Total Contract Amount	Projected Payments Thru Fy97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002
B. TREATMENT																
REMOTE HEADWORKS REHABILITATION																
17812 5469 Rehab - Constr 1	Sequoia Constr	Jul-93	Dec-94	\$112	\$112	\$0	20	15	8	\$0	43	491	672	50	0	\$0
17813 5413 Rehab - Design 2/RI	Anderson-Nichols	Nov-94	Mar-98	\$158	115	43	200	170	121	275	297	0	0	0	0	0
17814 5480 Rehab - Constr 2	TBS	Sep-96	Mar-98	\$841	150	491	0	100	0	0	0	0	0	0	0	0
17816 5414 Rehab - Constr 3	Apr-96	Jun-98	\$1,116	384	722	0	101	101	0	0	0	0	0	0	0	0
17817 5982 Technical Services	TBS	Jul-93	Apr-97	\$101	45	28	0	0	10	13	23	5	0	0	0	0
17818 6039 Elevator Rehab - Design	Bayside Engineering	Feb-96	Jul-98	\$73	45	28	50	550	600	1,200	1,200	167	0	0	0	0
19140 6082 Elevator Rehab - Constr	TBS	Aug-97	Jul-98	\$1,367	0	1,367	0	0	0	0	0	0	0	0	0	0
Project Total:				\$3,568	\$917	\$220	\$335	\$104	\$910	\$2,429	\$222	\$0	\$0	\$0	\$0	\$0

PROJECT	Project Participants	Notice to Proceed	Substantially Complete	Total Contract Amount	Projected Payments Thru Fy97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002
BOSTON HARBOR PERFORMANCE CERTIFICATION																
19139 6068 Phase I																
19148 6167 Phase II	Metcalf & Eddy	May-96	Oct-97	\$600	\$426	\$174	\$100	\$74	\$0	\$0	\$174	70	400	130	0	\$0
19151 6194 Phase III	TBS	May-96	Sep-98	\$600	0	600	0	0	70	70	0	0	0	0	0	0
Project Total:				\$3,550	\$426	\$1,124	\$100	\$74	\$0	\$70	\$244	\$400	\$130	\$200	\$150	\$0

PROJECT	Project Participants	Notice to Proceed	Substantially Complete	Total Contract Amount	Projected Payments Thru Fy97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002
ONGOING CAPITAL IMPROVEMENTS																
DEER ISLAND TREATMENT PLANT AS-NEEDED																
19154 3233 Contract Services	TBS	Jul-98	Jun-2000	\$500	\$0	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$250	\$250	\$0
Project Total:				\$500	\$0	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
DEER ISLAND CONSTRUCTION SERVICES CONTRACTS																
19155 6234 Construction - HVAC	TBS	Jul-97	Jun-99	\$150	\$0	\$150	\$100	\$50	\$0	\$0	\$150	150	150	0	0	\$0
19156 6235 Construction - Plumbing	TBS	Jul-97	Jun-99	\$150	0	150	100	50	0	0	0	0	0	0	0	0
19157 6236 Construction - Electrical	TBS	Jul-97	Jun-99	\$150	0	150	100	50	0	0	0	0	0	0	0	0
19158 6237 Construction - Site Work	TBS	Jul-97	Jun-99	\$150	0	150	100	50	0	0	0	0	0	0	0	0
19170 6369 System Modification	TBS	Jul-97	Jun-99	\$900	0	900	75	50	25	125	275	625	0	0	0	0
Project Total:				\$1,500	\$0	\$1,500	\$250	\$25	\$125	\$875	\$875	\$0	\$0	\$0	\$0	\$0

WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-SEP 1997			OCT-DEC 1997			JAN-MAR 1998			APR-JUN 1998			FY98			FY99			FY2000			FY2001			FY2002		
							1998	1997	1997	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	
ON-SITE GENERATION OF SODIUM HYPOCHLORITE																																	
19159 6238 Design/CSIRI	TBS	Dec-98	May-98	\$2,232	\$0	\$2,232	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
19160 6239 Construction	TBS	Jan-2000	Jun-2000	\$13,243	0	13,243	0																										
Project Total				\$15,475	\$0	\$15,475	\$0																										
DEER ISLAND COASTAL PROTECTION																																	
19161 6240 Coastal Protection	TBS	TBD	TBD	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
Project Total																																	
DEER ISLAND PLANT-WIDE SYSTEMS																																	
19162 6241 DISC Application	TBS	Jun-96	May-98	\$250	\$0	\$250	\$0	\$40	\$40	\$25	\$0	\$25	\$0	\$25	\$0	\$25	\$0	\$115	\$115	\$135	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Project Total																																	
DEER ISLAND DRY STORAGE WAREHOUSE																																	
18845 6196 Design	TBS	Jul-97	Jun-98	\$600	\$0	\$600	\$0	\$600	\$0	\$0	\$0	\$0	\$0	\$150	\$0	\$450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
19152 6197 Construction	TBS	Jun-99	Mar-2002	\$3,600	0	3,600	0	3,600	0																								
Project Total				\$4,200	\$0	\$4,200	\$0	\$4,200	\$0	\$0	\$0	\$0	\$0	\$150	\$0	\$150	\$0	\$150	\$0	\$150	\$0	\$150	\$0	\$150	\$0	\$150	\$0	\$150	\$0				
CLINTON LANDFILL LINER REPAIR																																	
19163 6242 Design	TBS	Jul-97	Sep-98	\$75	\$0	\$75	\$0	\$75	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
19164 6243 Construction	TBS	Oct-97	Mar-99	\$325	0	325	0	325	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
Project Total				\$400	\$0	\$400	\$0	\$400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			

WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1988-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
FINAL PAYMENTS & RELEASE OF RETAINAGE																
19063 5440 Design/CS - Clinton	CDM			\$4,116	\$4,116	\$0										
19096 5561 Niimmied Design				1,233	1,211	22										
Project Total:				\$5,349	\$5,327	\$22	\$0	\$0	\$0	\$0	\$32	\$0	\$0	\$0	\$0	0
SUBTOTAL: TREATMENT				\$22,792	\$6,670	\$26,422	\$817	\$699	\$1,014	\$1,305	\$3,835	\$3,882	\$13,520	\$3,655	\$1,230	\$0

BOSTON HARBOR PROJECT
CAPITAL EXPENDITURE FORECAST FY 1998 - 2007
(1000)

PROJECT		Project Participants	Notice To Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru: FY97	Remaining Balance	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002
D.1. PRIMARY & SECONDARY TREATMENT FACILITY																	
FACILITIES PLANNING																	
17881 5540 — Surveying	18821 5926 — Facilities Plan	CDM			\$15	\$15	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Phase Total:					\$16,533	\$16,533	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
SITE FACILITIES CONSTRUCTION																	
18020 5536 CP-020 Asbestos Removal Ft Dawes-SPS	Dec-Tam		Jun-89	\$518	\$518	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
18021 5589 CP-021 Damco Ft Dawes Blanks	J.M. Cashman	Aug-89	4,617	4,617	0	0	0	0	0	0	0	0	0	0	0	0	
18022 5601 CP-022 Earthwork/Infill Roads/	J.M. Cashman	Nov-89	17,017	17,017	0	0	0	0	0	0	0	0	0	0	0	0	
18023 5600 CP-022 Pump St Mod. & Sewers	Modem	Jan-90	5,713	5,713	0	0	0	0	0	0	0	0	0	0	0	0	
18024 5740 CP-024 Admin/Off/Rel/Plant/Wms/Sup/Hs	Modem	Apr-90	48,894	48,894	0	0	0	0	0	0	0	0	0	0	0	0	
18025 5748 CP-027 Main Shores Fcch Ph. I	Scuba	Sep-91	433	433	0	0	0	0	0	0	0	0	0	0	0	0	
18027 5728 CP-028 Main Shores Fcch Ph. II	J.M. Cashman	Dec-92	1,970	1,970	0	0	0	0	0	0	0	0	0	0	0	0	
18028 5841 CP-028 Disposal of Excess Till	J.M. Cashman	Aug-92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18030 5840 CP-020 Disposal of Excess Till	J.M. Cashman	Dec-92	14,077	14,077	0	0	0	0	0	0	0	0	0	0	0	0	
18040 5739 CP-040 DI Demolition Drumlin Env.	J.M. Cashman	Jun-94	16,758	16,758	0	0	0	0	0	0	0	0	0	0	0	0	
18042 5481 CP-042 Removal of Temp Facilities	TBS	Feb-94	250	250	0	0	0	0	0	0	0	0	0	0	0	0	
18043 5471 CP-043 Site Prep/Em East Trmt Pnt	Modern	Jan-97	39,670	39,670	0	0	0	0	0	0	0	0	0	0	0	0	
18044 5363 CP-048 Western Shoreline Protection	Newberg/Wash	Oct-97	25,470	25,470	0	0	0	0	0	0	0	0	0	0	0	0	
18044 6201 CP-049 Final Paving and Site Completion	TBS	Mar-98	31,780	31,780	0	0	0	0	0	0	0	0	0	0	0	0	
18050 5719 CP-049 Hazardous Mat Removal Ph. I	Tricel	Jun-94	7,386	7,386	0	0	0	0	0	0	0	0	0	0	0	0	
18050 5729 CP-050 Hazardous Mat Removal Ph. II	E.W.T.	Aug-94	1,547	1,547	0	0	0	0	0	0	0	0	0	0	0	0	
18050 5739 CP-050 Hazardous Mat Removal Ph. III	TBS	Apr-96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18050 5537 CP-050 Supply & Del. Concrete	Boston S&G	Apr-96	1,910	1,910	0	0	0	0	0	0	0	0	0	0	0	0	
18053 5633 CP-050 Int. Xfrn. & Transfer Gar	Lasden/WESCO	Apr-96	8,079	8,079	0	0	0	0	0	0	0	0	0	0	0	0	
18053 5649 CP-050 D.I. Sludge Transfer Fac	Scuba	May-90	3,896	3,896	0	0	0	0	0	0	0	0	0	0	0	0	
Phase Total:					\$233,888	\$171,082	\$62,806	\$491	\$2,676	\$1,938	\$6,866	\$11,771	\$37,411	\$10,334	\$3,280	\$0	
PRETREATMENT & PRIMARY CONSTRUCTION																	
18101 5707 CP-101 North System Tunnels	Kw/AltonKomy	Dec-90	20,625	20,625	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
18102 5722 CP-102 North Main Pump Station	J.F. White/PRK	Jun-91	95,974	87,593	8,381	4,141	4,240	0	0	0	0	0	0	0	0	0	
18103 5720 CP-103 North Main Headworks	Britt/O'Connill	Dec-94	97,696	96,996	700	0	0	0	0	0	0	0	0	0	0	0	
18104 5733 CP-104 South System Pump Station	Dick Corp	Nov-91	43,291	41,738	1,553	369	513	0	0	0	0	0	0	0	0	0	
18105 5700 CP-105 Primary Clarifier Btrry A&B	Gust Newberg	Mar-91	100,196	100,196	0	0	0	0	0	0	0	0	0	0	0	0	
18105 5742 CP-130 Primary Clarifier Btrry A&B	George Hyman	Mar-92	84,036	84,036	0	0	0	0	0	0	0	0	0	0	0	0	
18105 5743 CP-131 Inter-Island Trlt Ext Offl	Healy/Holmes	Nov-97	155,677	145,184	10,493	4,715	3,442	0	0	0	0	0	0	0	0	0	
18105 5850 CP-132 Nut Isl. Headworks	Modem/SAE	Jul-92	73,486	62,315	11,181	3,976	1,726	0	0	0	0	0	0	0	0	0	
18105 5853 CP-133 Nut Isl. Headworks	Various	Mar-91	347	347	0	0	0	0	0	0	0	0	0	0	0	0	
18105 5855 CP-134 Nut Isl. Headworks	Modem	Mar-95	10,023	535	0	0	0	0	0	0	0	0	0	0	0	0	
18105 5856 CP-135 Nut Isl. Headworks	Carlin	Oct-99	15,998	1,083	1,4916	3,120	1,040	0	0	0	0	0	0	0	0	0	
Phase Total:					\$697,895	\$560,156	\$47,759	\$17,46	\$11,086	\$4,322	\$25,223	\$35,223	\$8,260	\$4,276	\$0	\$0	

Phase Total:

BOSTON HARBOR PROJECT
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PROJECT	Project Participants	Notice To Proceed	Substant. Complete	Contract Amount	Total Balance	Projected Remaining Payments						FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002
						JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC						
SECONDARY CONSTRUCTION																	
18201 5743 CP-201	Permanent Pilot Plant	Peabody	Dec-94	\$11,942	\$11,942	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
18202 584 CP-202	Secondary Reactor Btrry A/B	J.F. White/PRKF	Apr-97	119,221	117,914	1,307	943	384	0	0	1,307	0	0	0	0	0	0
18203 5492 CP-203	Secondary Clarifier Btrry A/B	J.F. White/PRKF	Oct-93	153,328	145,568	7,770	4,050	2,495	815	410	0	7,770	0	0	0	0	0
18204 5744 CP-204	Disinfect Fctry Ph1/Seawall	Newberg/Walsh	Feb-96	42,067	41,811	256	256	0	0	0	256	0	0	0	0	0	0
18205 5804 CP-205	Water Storage Tank	R. Zoppo	Dec-92	1,061	9,061	0	0	0	0	0	0	0	0	0	0	0	0
18210 6180 CP-210	Ancil Dl. Mod. Ph II	Ancil Dl. Mod. Ph II	Jul-96	4,100	2,352	1,748	644	437	384	303	1,748	0	0	0	0	0	0
18211 6180 CP-211	Ancil Dl. Mod. Ph III	TBS	Jul-97	22,978	0	22,978	1,626	2,626	1,626	0	0	0	0	0	0	0	0
18212 6184 CP-212	Ancil Dl. Mod. Ph IV	Walsh	Jul-98	1,988	0	1,988	0	0	0	0	0	0	0	0	0	0	0
18241 6159 CP-241	Secondary Fctry/Hydro Plant Ph. II	Walsh	Jan-93	36,948	35,423	1,525	188	186	186	186	186	744	781	0	0	0	0
18260 6159 CP-250	Secondary Reactor and Clarifier at Modern Cont.	Various	Dec-97	161,570	13,494	148,076	10,283	13,773	9,939	16,931	56,931	60,499	36,651	0	0	0	0
18261 6159 CP-251	Preparative	Kwadrak/Kemey	Dec-93	959	463	486	246	0	0	0	0	0	0	0	0	0	0
18262 5833 CP-262	Effluent Outfall Tunnel	Various	Aug-90	255,632	240,225	15,407	2,647	2,647	2,017	1,952	2,017	6,144	0	0	0	0	0
18263 5833 CP-263	Effluent Outfall Disperser	Aug-90	Sep-98	77,088	77,088	0	0	0	0	0	0	0	0	0	0	0	0
18264 5724 CP-285	Effl Ctr Tmck Proc Disp	Cashman	Aug-90	14,449	13,988	491	0	0	0	0	0	0	0	0	0	0	0
18265 5724 CP-286	Effl Ctr Tmck Proc Disp	Cashman	Sep-91	17,154	17,146	308	123	123	62	0	0	0	0	0	0	0	0
Phase Total:				\$928,765	\$724,455	\$222,350	\$21,499	\$22,897	\$15,009	\$22,408	\$81,813	\$77,005	\$43,332	\$0	\$0	\$0	\$0
ON-ISLAND RESIDUALS CONSTRUCTION																	
18301 5723 CP-301	Res Trt Fcty Ph I Prt A/B/C/D	PrmEshn	Aug-91	\$213,781	\$578	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
18303 5493 CP-303	Res Trt Fcty Ph. Sec A/B	Hyman	Oct-93	96,341	4,407	2,068	1,291	1,036	0	0	0	0	0	0	0	0	0
Phase Total:				\$315,107	\$310,122	\$4,985	\$2,436	\$1,191	\$1,098	\$0	\$4,985	\$0	\$0	\$0	\$0	\$0	\$0
PERMANENT UTILITIES CONSTRUCTION																	
18401 5615 CP-401	Off Island Water Line	LinGiosso	Jan-93	\$14,671	\$14,416	\$255	\$255	\$0	\$0	\$0	\$255	\$0	\$0	\$0	\$0	\$0	\$0
18427 5710 CP-427	Min 13.8 Swrg Bld/DisDy Util	Sciba	Jun-93	21,245	21,245	0	0	0	0	0	0	0	0	0	0	0	0
18428 5745 CP-428	On-Site Power Plant for DI	J.F. White/PRKF	Oct-97	80,341	77,007	3,934	1,238	1,101	945	650	3,934	0	0	0	0	0	0
18431 5768 CP-431	BECO CTO	Beco	Jan-94	34,985	34,985	0	0	0	0	0	0	0	0	0	0	0	0
18450 5546 CP-450	Instrumentation & Contr Ph 1	Bailey	Jan-93	21,213	4,352	324	324	0	0	322	1,292	1,928	1,132	0	0	0	0
18460 5590	Facility Information System	Various	Aug-97	6,662	5,533	929	250	175	81	250	173	0	0	0	0	0	0
18482 5589 CP-452	Plant Communication System	Fschbach&Moore	Jan-93	10,853	1,659	154	245	245	154	758	546	315	0	0	0	0	0
Phase Total:				\$181,409	\$180,280	\$11,129	\$2,221	\$1,845	\$1,593	\$1,176	\$1,147	\$0	\$0	\$0	\$0	\$0	\$0

BOSTON HARBOR PROJECT
CAPITAL EXPENDITURE FORECAST FY 1998 - 2007
(\$000)

PROJECT	Project Participants	Notice To Proceed	Substant. Complete	Contract Amount	Total Projected Remaining			JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002			
					6/30/97	7/19/97	8/19/98													
CONSTRUCTION MANAGEMENT																				
18601 5535	—	PICM Services	98-389		Kaiser	Aug-88	Jun-91	\$18,354	\$18,354	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
18602 5622	—	CM Services (98-389)			Kaiser	Aug-90	Dec-98	\$249,258	203,280	45,968	7,986	7,621	7,540	31,059	\$14,909	0	0			
18603 5751	—	Facilities Training	99-2004		TBS	Jan-99	Dec-2004	\$15,532	0	15,532	0	0	0	0	9,072	6,460	0	0		
18604 5496	—	Project Offices			M & E	Jun-90	Jun-2000	3,575	2,473	1,102	55	55	55	220	195	687	0	0		
18605 5889	—	Migrant Support Services			Flailey	Jul-88	Jun-98	6,083	5,782	301	76	75	75	301	0	0	0	0		
18606 5492	—	Consultant Computers			HP	Jul-98	Jul-90	505	505	0	0	0	0	0	0	0	0	0		
18607 5488	—	Job Training			Vocational/Career	Nov-88	Sep-93	600	2,392	0	0	0	0	0	0	0	0	0		
18608 5611	—	Legal Liens fees			various	Oct-88	Jun-93	63	63	0	0	0	0	0	0	0	0	0		
18609 5632	—	Professional Services			various	Oct-89	Jun-91	4,185	1,307	159	157	159	157	632	500	175	0	0		
18610 5633	—	Insur. & Util. Rates			TBS	Jan-90	Jun-2000	5,492	0	5,492	0	0	0	0	0	0	0	0		
18611 5634	—	Insur. & Util. Risk			Insur. & Util.	Jan-90	Jun-98	2,334	780	1,534	268	0	0	500	277	323	0	0		
18612 5635	—	Insur. & Util. Rates			Alex & Alex	Jan-90	Jun-98	6,485	0	4,261	2,24	858	0	0	200	1,058	927	0	0	
18613 5631	—	Insur. & Util. Lab			Johnson Higgins	Jan-90	Jun-98	4,522	422	0	0	0	0	0	0	0	0	0		
18614 5724	—	Insur. & Util. Lab			Tainglass	Jan-90	Dec-98	3,717	2,323	84	6	6	6	24	24	36	0	0		
18615 5553	—	Risk Mgmt.			M & BPH&E	Jan-90	Jun-98	5,616	5,616	0	0	0	0	0	0	0	0	0		
18616 5616	—	Labor & Equip. Admin. Serv.			DEP	Jan-90	Dec-99	3,078	2,301	77	43	43	43	172	227	378	0	0		
18617 5713	—	Permit Fees			Smith Cur / Ch 148	Jan-90	Dec-99	5,732	3,955	2,365	26	26	26	104	103	188	0	0		
18618 5725	—	Outfall Admin			various	Jan-90	Jan-98	6,255	4,165	2,980	522	523	523	0	0	0	0	0		
18619 5733	—	Outfall Permitts			TBS	Jan-90	Jan-98	1,100	1,000	0	0	100	0	0	0	0	0	0		
18620 5729	5729	CP-2088			Outfall Starpills	Jan-90	Jan-98	9,460	148	9,300	0	0	0	0	0	0	0	0		
18621 5734	—	Winthrop Esments			various	Jan-93	Dec-95	1,000	636	3,264	364	0	0	0	0	0	0	0		
18622 5748	—	Building Permits			DEP	Jan-93	Dec-95	3,500	2,668	822	298	298	298	0	384	0	0	0		
18623 5749	—	Misc. Fcill Support			various	Jan-93	Jun-98	3,466	2,194	1,272	124	124	124	0	832	424	352	0		
18624 5437	5437	CP-4-04			Winthrop	Aug-93	Aug-94	1,602	1,802	0	0	0	0	0	0	0	0	0		
18625 5581	—	MBZ/WBZ Assistance			Jul-96	Dec-96	0	0	0	0	0	0	0	0	0	0	0			
18626 5885	—	Construction Safety			Aug-97	Jun-98	1,120	784	525	39	39	39	642	152	0	0	0			
18627 5886	—	various			Mar-93	Jun-98	1,120	784	2,936	608	608	608	607	637	2,430	506	0	0		
18628 5894	—	various			Mar-93	Jun-98	1,874	1,713	0	0	0	0	0	0	0	0	0	0		
18629 5714	—	FORO - Rolling Stock			Mar-93	Jun-98	1,713	1,713	0	0	0	0	0	0	0	0	0	0		
18630 5720	—	FORO - Shop & Maint. Equip.			Mar-93	Jun-98	1,110	660	144	0	0	0	0	0	0	0	0	0		
18631 5761	—	various			Mar-93	Jun-98	2,726	2,254	272	0	0	0	0	0	0	0	0	0		
18632 5764	—	various			Aug-93	Jun-98	158	0	0	0	0	0	0	0	0	0	0	0		
18633 5765	—	various			Mar-93	Jun-98	1,377	1,589	(212)	0	0	0	0	0	0	0	0	0		
Phase Total:								\$354,886	\$287,244	\$87,654	\$11,740	\$9,586	\$0	\$1,103	\$41,568	\$35,960	\$10,003	\$323	\$0	
LEAD DESIGN SERVICES																				
18500 5547	—	LDE Services			M & E	Aug-88	Jun-98	\$87,011	\$64,020	\$2,991	\$742	\$742	\$742	\$2,991	\$0	\$0	\$0	\$0	\$0	
18607 5547	—	Cadd I			McDonnell Douglas	Aug-88	Mar-98	5,475	5,475	0	0	0	0	0	0	0	0	0	0	
18229 5721	—	Cadd II			McDonnell Douglas	Jul-89	Jun-99	3,554	2,473	1,081	153	153	154	614	467	0	0	0	0	
18608 5486	—	Geotechnical Services			Warren George	May-89	Oct-89	9,707	0	0	0	0	0	0	0	0	0	0	0	
18541 5575	—	Engineering Svcs During Construct			various	Apr-93	Jun-99	0	0	0	0	0	0	0	0	0	0	0	0	
Phase Total:								\$105,747	\$101,675	\$4,072	\$915	\$898	\$896	\$896	\$487	\$0	\$0	\$0	\$0	\$0

BOSTON HARBOR PROJECT
CAPITAL EXPENDITURE FORECAST FY 1993 - 2007
(\$ in \$000)

PROJECT		Project Participants	Notice To Substant. Proc'd	Total Contract Amount	Projected Remaining Thru F1997	Balance F1997	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	BEYOND F12002
SITE FACILITY DESIGN																
18501 5528 DP-1	Early Site Prep	Bryant, Tsokos	Oct-88	Mar-89	\$3,174	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
18507 5489 DP-7	Support Buildings Ph. I	H&M/Earthtech	Sep-90	Jan-96	6,563	70	70	0	0	0	0	0	0	0	0	
18527 5629 DP-28	D.I. Haz Waste Eng Sys	Green Environment	Feb-91	May-98	2,805	0	0	0	0	0	0	0	0	0	0	
18963 6049 DP-34	D.I. Haz Waste Eng Sys II		May-95	Apr-98	502	265	237	48	48	48	192	45	0	0	0	
Phase Total:					\$13,134	\$12,827	\$3,07	\$118	\$48	\$48	\$262	\$45	\$0	\$0	\$0	
PRETREATMENT & PRIMARY DESIGN																
18504 5532 DP-4	Nut Island Headworks	Havens&Eners	Jun-90	Sept-98	\$8,844	\$8,613	\$231	\$71	\$50	\$50	\$221	\$40	\$0	\$0	\$0	
18505 5494 DP-5	Inter-Island Tunnel	Sverdrup	Feb-89	Dec-97	5,230	4,941	289	164	125	0	289	0	0	0	0	
18509 5529 DP-9	Primary Phase I	Malcom Pirnie	Jun-89	Oct-97	10,233	449	289	150	0	0	449	0	0	0	0	
Phase Total:					\$24,766	\$23,787	\$969	\$334	\$325	\$350	\$559	\$10	\$0	\$0	\$0	
SECONDARY DESIGN																
18506 5531 DP-6	Effluent Outfall Tunnel	Parsons	Feb-89	Oct-98	\$7,901	\$7,225	\$195	\$192	\$192	\$195	\$774	\$461	\$0	\$0	\$0	
18538 5570 DP-38	Ancil. D.I. Mod. Design	Sverdrup	Apr-93	Jun-97	5,016	4,301	715	234	231	250	715	0	0	0	0	
18519 5603 DP-19	Pilot Plant	CDM	Jan-91	Jul-91	425	0	0	0	0	0	0	0	0	0	0	
18528 5701 DP-28	Sec. Treat. Fac. Ph. 1&2	Malcom Pirnie	Dec-98	31,627	2,855	450	324	319	1,543	312	0	0	0	0	0	
18529 5685 DP-29	Sec. Treat. Fac. Ph. 3	Various	May-99	2,045	1,643	402	0	0	0	0	402	0	0	0	0	
18540 5686 DP-40	Sec. Treat. Fac. Ph. 4	McCall & Eddy	Jun-2000	14,559	7,164	623	623	797	797	2,840	2,698	1,716	0	0	0	
Phase Total:					\$62,708	\$51,337	\$11,371	\$1,602	\$1,456	\$1,666	\$1,308	\$5,872	\$3,381	\$2,218	\$0	
ON-ISLAND RESIDUALS DESIGN																
18513 5608 DP-13	Residuals Phase I	Black & Veatch	Nov-89	Mar-91	\$10,416	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
18514 5738 DP-31	Res Proc PH I	Havens&Eners	Oct-91	Nov-96	6,286	6,286	0	0	0	0	0	0	0	0	0	
18516 5758 DP-32	Res Proc PH II	Camp Dresser&Keele	Jun-90	Apr-97	8,369	500	500	0	0	0	500	0	0	0	0	
Phase Total:					\$25,551	\$25,051	\$500	\$0	\$0	\$0	\$500	\$0	\$0	\$0	\$0	
PERMANENT UTILITIES DESIGN																
18553 5624 DP-3	Elec Dist Facilities	Rw Beck	Feb-90	Apr-96	\$3,459	\$3,459	90	90	90	90	90	90	\$0	\$0	\$0	
18552 5512 DP-23	Ww & Hyd Plant/Off Tnk	Rw Beck	Oct-90	Jun-98	2,460	20,113	1,347	475	447	213	1,347	0	0	0	0	
18553 5610 DP-25	Plant & Can Dom	EMA	Jan-90	Dec-97	9,05	7,978	1,127	288	285	279	275	1,127	0	0	0	
18554 5465	Rev/Chewlin Util. Line	Rw Beck	Dec-88	Aug-92	3,644	0	0	0	0	0	0	0	0	0	0	
Phase Total:					\$37,558	\$35,194	\$2,474	\$763	\$732	\$492	\$498	\$2,474	\$0	\$0	\$0	
CONSTRUCTION SUPPORT SERVICES DESIGN																
18522 5607 DP-22	Const. Support Facil.	Lin Assoc.	Aug-89	Jun-90	\$1,216	\$1,216	0	0	0	0	0	0	\$0	\$0	\$0	
18524 5687	D.I. Design Services	Various	Mar-95	Sep-97	500	295	185	100	0	0	285	0	0	0	0	
Phase Total:					\$2,091	\$1,806	\$295	\$185	\$100	\$0	\$285	\$0	\$0	\$0	\$0	
PROJECT TOTAL:					\$1,098,902	\$2,638,410	\$451,492	\$64,088	\$55,527	\$38,676	\$46,532	\$206,843	\$170,962	\$15,127	\$4,560	\$0

BOSTON HARBOR PROJECT
CAPITAL EXPENDITURE FORECAST FY 1998-1 - 2007
(\$000)

PROJECT		Project Participants	Notice To Proceed	Total Substant. Complete	Contract Amount	Total Payments	Projected Remaining Balance	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
WATER TRANSPORTATION FACILITIES																		
DEER ISLAND	18001 5523 CP-001	Marine Facilities @ DI	J.M. Cashman	Jul-88	Feb-90	\$27,684	\$27,684	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	18061 5517	D.J. Pile; Sheet Pile	J.F. White	Jun-88	Nov-88	1,180	1,180	0	0	0	0	0	0	0	0	0	\$0	
	18062 5518	D.J. Pile; Pipe Pile	J.F. White	Oct-90	4,198	4,198	0	0	0	0	0	0	0	0	0	0	0	
	18067 5598	Res. Insp. D. Per. -	C.E. MacQuire	Nov-91	12	1,12	0	0	0	0	0	0	0	0	0	0	0	
	18068 5497	Res. Insp. - D. -	C.E. MacQuire	Feb-90	1,311	0	0	0	0	0	0	0	0	0	0	0	0	
	Phase Total:					\$34,355	\$34,355	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
FORE RIVER STAGING AREA (FRSA)																		
	18002 5524 CP-002	On-Shore Marine Facility	J.M. Cashman	Apr-89	Apr-90	\$6,966	\$6,966	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	18010 5884 CP-010	Asbestos & Enc Clad Rmly, FRSA	N Amer Site	Apr-90	Jul-90	423	423	0	0	0	0	0	0	0	0	0	\$0	
	18011 5508 CP-011	Asbestos	Dipizio	Aug-90	Aug-90	240	240	0	0	0	0	0	0	0	0	0	0	
	18012 5514 CP-012	Maritime & On-Shore Fac	FRSA	Jan-90	5,710	5,710	0	0	0	0	0	0	0	0	0	0	0	
	18012 5879	Land FRSA	GeneralDynamic	Sept-91	629	5339	0	0	0	0	0	0	0	0	0	0	0	
	18017 5890	FRSA Utilities	Mass Electric	Jan-90	50,895	50,895	0	0	0	0	0	0	0	0	0	0	0	
	18073 5845			Jan-90	886	494	392	51	51	51	51	204	188	0	0	0	0	
	Phase Total:					\$66,019	\$65,527	\$392	\$51	\$51	\$51	\$204	\$188	\$0	\$0	\$0	\$0	
SQUANTUM POINT																		
	18005 5621 CP-005	Dredging at Squantum Point	J.M. Cashman	Jan-90	Feb-90	\$417	417	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	
	18013 5588 CP-013	Per Ferry @ Squantum Pt	RDA	May-90	1,451	1,451	0	0	0	0	0	0	0	0	0	0	\$0	
	18014 5634 CP-014	Upland Ferry @ Squantum Pt	Reynolds	Aug-90	1,980	1,980	0	0	0	0	0	0	0	0	0	0	0	
	18016 5737 CP-016	Squantum Pt Inter Imprv	Quincy	Dec-94	1,047	1,047	0	0	0	0	0	0	0	0	0	0	0	
	18064 5732	Sq. Pt. Maintenance	MB - Access Corp	Apr-91	650	582	268	24	24	24	24	96	75	97	0	0	0	
	18818 5477	Squantum Point Lease	MDC	Dec-99	3,261	0	0	0	0	0	0	0	0	0	0	0	0	
	Phase Total:					\$8,986	\$8,718	\$268	\$24	\$24	\$24	\$96	\$75	\$97	\$0	\$0	\$0	
REVERE SUGAR																		
	18009 5725 CP-009	Christlwn Demo. Rehab & Frry Trm	Reynolds	Feb-92	Aug-92	\$2,427	\$2,427	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	18063 5895	Asbestos - Revere Sugar	Dec - Tam	Jul-91	483	483	0	0	0	0	0	0	0	0	0	0	0	
	18819 5576	Revere Sugar Lease	Massport	Oct-94	2,234	2,234	0	0	0	0	0	0	0	0	0	0	0	
	Phase Total:					\$5,144	\$5,144	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

**BOSTON HARBOR PROJECT
CAPITAL EXPENDITURE FORECAST FY 1998 - 2007
(\$000)**

BOSTON HARBOR PROJECT CAPITAL EXPENDITURE FORECAST FY 1998 - 2007 (\$000)																	
PROJECT	Project Participants	Notice To Proceed	Substant. Contract Complete	Total Contract Amount	Projected Payments Thru F.Y.97	Remaining Balance 6/30/97	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	BEYOND F.Y.2002		
UT ISLAND	5718 CP-015 5533 Res. Insp.-N.I. 5515 CP-150 Marine Facilities @ NI	Great Lake C.E. Maquire Sciabka	Jan-91 Jan-89 Jan-89	\$243 588 6,548	\$243 588 6,548	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0	\$0 0 0			
Phase Total:				\$7,379	\$7,379	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
DESIGN	5986 DP-20 5519 Waterland Trans. Fac. 5521 Design - On Shore 5522 Design - Off Island 5525 DP-50 5764 DP-77 5833 DP-97	Fred Harris Parson Brinckerhoff C.E. Maquire Quaney F.R. Harris	Jun-89 Oct-87 Apr-87 Mar-91 May-92	\$1,348 2,496 1,639 399 63	\$1,348 2,496 1,639 399 63	\$0 0 0 0 0	\$0 0 0 0 0	\$0 0 0 0 0	\$0 0 0 0 0	\$0 0 0 0 0	\$0 0 0 0 0	\$0 0 0 0 0	\$0 0 0 0 0	\$0 0 0 0 0			
Phase Total:				\$5,945	\$5,945	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
WTS OPERATIONS	5628 CP-908 5633 CP-927 Bus Transport Sys 98-900 5610 CP-907 WTS/RORO Transport Op 99-97 5634 CP-925 WTS/RORO Transport Op 98-900 WTS/Person Trans Op 98-97 5635 CP-926 WTS/Person Trans Op 98-90	Modern TBS TBS TBS TBS TBS TBS TBS	Jul-90 Dec-97 Dec-2000 Nov-97 Dec-97 Dec-2000 Dec-97 Dec-97 Dec-97 Dec-2000	\$23,005 3,497 33,323 38,523 3,200 8,751 30,315 4,777 0	\$23,005 3,497 33,323 38,523 3,200 8,751 30,315 4,777 0	\$501 0 1,600 0 0 0 0 0 0	\$499 318 1,600 0 0 0 0 0 0	\$0 318 1,600 0 0 0 0 0 0	\$1,000 3,497 33,323 38,523 3,200 8,751 30,315 4,777 0								
Phase Total:				\$10,622	\$17,643	\$2,934	\$2,934	\$2,934	\$1,686	\$1,686	\$2,920	\$1,686	\$2,226	\$6,121	\$2,472		
OTHER WTS	5865 Technical Assistance WTS 5878 CP-907 5825 Appraisal Service 5888 Haz. Waste Servs Rev. 5892 Historical Surveys 5893 CP-007 5893 ROWS Wttr Permit 5897 ROWS Site Appraisal 5898 ROWS Dredging 5899 ROWS Dredging II	WTS C.E. Maquire Legal/CCall NUS Boston Afr. Reynolds Comm. Maritime Marin Bell Isle Cassman TBS	Apr-90 On-Going Jul-88 Mar-89 Mar-89 Mar-89 Mar-90 Aug-92 Jul-98 Mar-99 Mar-99 Dec-97 Dec-99	\$308 1,875 25 0 0 0 0 0 39 10 10 0 0 0 0	\$308 1,875 25 0 0 0 0 0 39 10 10 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Phase Total:				\$11,460	\$9,449	\$2,041	\$2,041	\$2,041	\$337	\$337	\$12,835	\$337	\$1,702	\$76	\$0		
PROJECT TOTAL:						\$29,850	\$22,120	\$25,560	\$1,107	\$1,107	\$2,096	\$10,789	\$7,086	\$5,333	\$2,472	\$0	
SUB TOTAL: BHP						\$3,345,752	\$2,265,680	\$4,03,072	\$6,135	\$6,135	\$6,8325	\$4,0774	\$50,638	\$21,632	\$8,0468	\$8,0,560	\$7,0312
TOTAL: TREATMENT						\$3,378,844	\$22,665,350	\$559,194	\$68,412	\$68,412	\$55,524	\$4,1788	\$51,843	\$21,4467	\$8,1330	\$9,0,687	\$1,230

**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007**
(\$000)

	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru: FY97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
C. RESIDUALS																
RESIDUALS MANAGEMENT FACILITIES																
25941 5667 Des/Cs Pelletizing 1	Tighe & Bond	Aug-93	Feb-97	\$5,942	\$5,061	\$881	\$175	\$175	\$175	\$175	\$700	\$181				\$0
25948 5669 Fast Track Equip. Pre-purch IBS	Thomas O'Connor	Aug-94	Jun-95	\$302	302	0	0	0	0	0	0	0	0	0	0	0
26055 6009 Fast Track Equip. Installatn	Pool & Kent Co.	Oct-96	Apr-97	\$1,457	1,457	0	0	0	0	0	0	0	0	0	0	0
26056 6010 Outside Construction	Alta Lava Sep. Inc.	Jan-98	Mar-98	\$13,58	11,284	1,864	1,600	264	0	0	1,864					
26057 6011 Inside Construction	Pool & Kent Co.	May-98	Jul-98	\$4,702	4,657	45	45	0	0	45	45					
26058 6012 Inside Construction	Pool & Kent Co.	Nov-96	Jun-99	\$24,365	3,352	21,013	8,542	5,022	3,152	1,544	18,260	2,753				
25961 5643 Residual Research	UMASS Amherst	Aug-90	Apr-97	\$443	443	0	0	0	0	0	0	0	0	0	0	0
26059 6083 License Fee	Enviro-go	Jan-2001	Jan-2003	\$675	0	675	0	0	0	0	0	0	0	0	0	0
26060 6373 Cogen Study	TBS	Dec-98	Dec-98	\$250	0	250	63	63	0	0	0	0	0	0	0	0
25968 5831 Royalty	TBS	Feb-96	Jun-97	\$562	562	0	0	0	0	0	0	0	0	0	0	0
Project Total:					\$51,856	\$27,128	\$24,728	\$10,362	\$5,461	\$3,390	\$1,782	\$20,905	\$3,058	\$0	\$225	\$225

**FINAL PAYMENT & RELEASE
OF RETAINAGE**

25926 5869 Technical Assistance	Various				\$1,294	\$1,294	\$0									
25917 5852 EID/Des/FP/CSIR - Pallet	NE Fertilizer				15,730	15,730	0									
25919 5845 Const-r-FSRA Facility	Keween Eastem				62,761	62,761	0									
25920 5846 Const-r-FSRA Pier	J. Mahoney				4,201	4,201	0									
25938 5864 Facilities Planning	Black & Veatch				9,630	9,630	0									
25969 5853 Study-Alternative Lntf	W. C. Finn				250	250	0									
25972 5870 Emergency Plan	R. Weston				94	94	0									
25943 5872 Design Landfill 1	ENSR				4,426	4,426	0									
Project Total:					\$98,386	\$98,386	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Sub-total: RESIDUALS

					\$150,242	\$125,514	\$24,728	\$10,362	\$5,461	\$3,390	\$1,782	\$20,905	\$3,058	\$0	\$225	\$225
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**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007**
(\$000)

(\$000)

MIURA MANAGED PROJECTS

STONY BROOK SCREENING AND DISINFECTION FACILITY	TBS	Jul-98	Mar-03	3,240	0	3,240	0	0	733	998	392	691	526
32687 6250 DesignCSIRI	TBS	Mar-01	Mar-03	16,199	0	16,199	\$0	\$0	\$0	\$0	\$0	5,185	7,946
32688 6251 Construction #1												\$5,577	\$8,657
Project Total				\$19,439		\$19,439	\$0	\$0	\$0	\$0	\$0	\$3,594	

CAMBRIDGE CAMBODIA HYDRAULIC RESEARCH

TBS

Project Total

WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Projected Payments Thru FY97	Remaining Balance						FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002	
					Total Contract Amount	Contract Payments Thru FY97	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	JUL-SEP 1997							
FORT POINT CHANNEL STORAGE CONDUIT, CHARLESTOWN BOS019 STORAGE CONDUIT	TBS	Jul-2002	Mar-2007	2,782	0	2,782	0	0	0	0						2,782	
32678 6258 Design/CSIRI	TBS	Mar-2005	Mar-2007	10,867	0	10,867	0	0	0	0						10,867	
32678 6259 Construction 1	TBS	Mar-2005	Sep-2006	3,042	0	3,042										3,042	
32677 6260 Construction 2	TBS			\$16,691	\$0	\$16,691	\$0	\$0	\$0	\$0						\$16,691	
Project Total																	
CHELSEA TRUNK SEWER AND BRANCH SEWER RELIEF, CHELSEA CHER008 OUTFALL IMPROVEMENTS																	
32678 6261 Design/CSIRI	TBS	Jul-97	Dec-2002	4,810	0	4,810	170	260	219	909	678	1,513	889	445	457	176	
32679 6262 Construction #1	TBS	Sep-99	Aug-2000	3,037	0	3,037	0	0	0	0	0	2,580	9,620	877	0	0	
32680 6263 Construction #2	TBS	Dec-99	Jun-2001	17,720	0	17,720						7,223					0
32680 6263 Construction #3	TBS	Jul-2002	Dec-2002	1,646	0	1,646											1,646
32680 6371 Construction #4	TBS	Jul-2002	Dec-2002	1,645	0	1,645											1,645
Project Total				\$26,857	\$0	\$26,857	\$770	\$260	\$219	\$0	\$0	\$878	\$11,376	\$1,322	\$3,467		
UNION PARK DETENTION TREATMENT FACILITY																	
32881 6264 Design/CSIRI	TBS	Dec-99	Mar-2005	5,436	0	5,436	0	0	0	0	0	0	0	516	1,135	1,032	
32882 6265 Construction	TBS	Mar-2003	Mar-2005	27,184	0	27,184											2,753
Project Total				\$32,620	\$0	\$32,620											27,184
Project Total																	\$39,337
UPGRADE EXISTING CSO FACILITIES AND MWRA FLOATABLES CONTROL																	
32647 6123 Design/CSIRI	CDM	Jun-96	Oct-99	2,749	1,234	1,515	280	460	340	180	1,260	170	85	0	0	0	
32685 6268 Construction #1	TBS	Nov-97	Oct-99	6,929	0	6,929	0	0	0	1,500	3,000	4,500	1,929	500	0	0	
32686 6269 Construction #2	TBS	Oct-97	Apr-99	2,334	0	2,354	0	762	850	542	2,154	200	0	0	0	0	
32687 6270 Construction #3	TBS	Feb-98	Oct-99	285	0	285	0	0	0	50	50	155	80	0	0	0	
Project Total				\$12,317	\$1,234	\$11,083	\$280	\$1,222	\$2,690	\$3,772	\$7,954	\$2,454	\$665	\$0	\$0	\$0	

COMMUNITY MANAGED PROJECTS:

SOUTH DORCHESTER BAY SEWER SEPARATION (FOX POINT BOS08688)	Various	Jun-96 Nov-98	Sep-2007 Sep-2007	6,160 32,177	2,190 97	3,970 32,080	0 0	239 263	0 502	239 263	342 1,675	449 2,017	541 3,092	563 4,205	1,836 4,582	18,773 \$4,836
Project Total				\$38,337	\$2,287	\$36,050	\$0	\$0	\$0	\$0	\$2,017	\$3,541	\$0	\$0	\$0	\$0,000

**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)**

PROJECT	Project Participants	Notice to Proceed	Substant Complete	Total Contract Amount	Projected Payments Thru: FY97	Remaining Balance 6/30/97	JAN-MAR 1998			APR-JUN 1998			FY98			FY99			FY2000			FY2001			FY2002			
							Jul-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013		
SOUTH DORCHESTER BAY SEWER SEPARATION (COMMERCIAL POINT BOS090)	Various TBS	Jun-96 Nov-2008	9,084 51,502	2,421 25	6,663 51,477	0	187	25	187	25	373	612	880	886	892	896	895	896	895	896	895	896	895	896	895	3,704	31,982	
32655 6154 Design/CSIRI																												
32685 6248 Construction																												
Project Total																												
NEPONSET RIVER SEWER SEPARATION (BOS093-95)	Various TBS	Jun-95 Jun-2000	1,732 7,530	243 80	1,489 7,450	0	496	0	496	0	403	3,406	1,644	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32652 6156 Design/CSIRI																												
32653 6160 Construction																												
Project Total																												
CONSTITUTION BEACH SEWER SEPARATION (BOS002)	Various TBS	Jan-97 Oct-2000	1,425 7,839	49 65	1,376 7,774	0	682	65	682	65	65	3,654	328	366	0	0	0	0	0	0	0	0	0	0	0	0	0	
32649 6151 Design/CSIRI																												
32686 6249 Construction																												
Project Total																												
CAMBRIDGE CAM002-004 SEWER SEPARATION	Various TBS	Jan-97 Jan-2000	1,943 10,634	1,001 0	942 10,634	297					297	588	57															
32654 6161 Design/CSIRI																												
32672 6255 Construction																												
Project Total																												
BWSC FLOATABLES CONTROL	TBS	Jan-98 May-2001	178 923	58 0	120 923	15					15	22	60	24														
32637 6168 Design/CSIRI																												
32683 6266 Construction																												
Project Total																												
CAMBRIDGE FLOATABLES CONTROL	Various TBS	Jan-97 May-2001	65 351	0 0	65 351	16					16	16	20	20	9													
32655 6162 Design/CSIRI																												
32684 6267 Construction																												
Project Total																												

**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007**

(\$000)

PROJECT	Project Participants	Notice to Proceed	Substantially Complete	Total Contract Amount	Protected Payments Thru FY97	Remaining Balance 6/30/97	JUL-SEP		OCT-DEC		JAN-MAR		APR-JUN		BEYOND FY2002		
							1997	1998	1997	1998	1997	1998	1997	1998	1997	1998	
CSO PLANNING AND SUPPORT																	
32440 5790 Consult Tech Asst	CH2M-Hill	Mar-86	Feb-88	\$228	\$228	\$0											
32401 5791 Planning/ER	CH2M-Hill	Mar-88	Sep-90	\$10,769	10,769	0											
32403 5716 Master Planning	Metcalf & Eddy	Mar-92	Sep-97	\$18,127	17,764	863	500	183	180	0	\$863						\$0
32845 6038 Watershed Planning	CRWVA	Dec-94	Oct-99	\$869	409	160	80				\$80						0
32409 5795 Modelling	MIT	May-92	Oct-94	\$300	300	0	0	0	0	0	0						0
32411 5767 SOR Program	Boston Water/Sew	Jan-94	Jun-2000	\$2,508	0	2,508	0	0	0	0	0						0
32407 5970 Technical Assistance	Various	Mar-88	Feb-2010	\$61	61	0	0	0	0	0	0						0
32891 6372 System Assessment	TBS	May-97	Jun-2000	\$26	474	39	39	40	40	158	158						0
32648 6150 Technical Review	TBS	Jun-96	Dec-2009	235	209	7	2	4	4	17	16	16	16	16	16	16	128
32888 6271 Financial Audit	TBS	Jul-98	Jul-2009	360	0	360	0	0	0	45	45	45	45	45	45	45	195
32658 6169 LandEasement	TBS	Jul-96	Jun-05	12,750	207	12,544	20	15	115	515	665	1,502	3,404	2,612	1,25	1,25	4,236
Project Total				\$46,9107	\$31,998	\$14,610	\$566	\$319	\$339	\$604	\$1,828	\$1,771	\$3,623	\$2,643	\$186	\$4,559	
Sub-total: CSOs				\$469,915	\$39,261	\$430,655	\$1,352	\$6,654	\$9,069	\$6,419	\$23,494	\$33,250	\$39,796	\$76,477	\$72,073	\$185,555	

**WASTEWATER IMPROVEMENT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998 - 2007
(\$000)**

PROJECT	Project Participants	Begin	End	Total	Projected	Remaining Balance				FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002
				Contract Amount	Payments Thru FY97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998						
E: OTHER															
1501 III PROGRAM Community Financial Assistance															
10232 5320 GRANT (25%)	Communities	May-93	May-95	\$5,766	\$5,766	\$0									\$0
10233 5383 LOAN (75%)	Communities	May-93	May-95	\$17,150	11,750	0									0
10234 5394 REPAYMENT	Communities	May-94	May-2002	(\$17,150)	(\$6,652)	(8,498)	(750)	(750)	(750)	(3,000)	(2,000)	(1,500)	(1,000)	(988)	
10273 6084 GRANT (25%)	Communities	Jul-95	Jun-2005	10,171	2,991	7,180	250	250	250	1,000	1,000	1,500	1,500	1,500	680
10274 6085 LOAN (75%)	Communities	Jul-95	Jun-2005	30,514	8,978	21,536	750	750	750	3,000	3,000	4,500	4,500	4,500	2,036
10282 6170 REPAYMENT	Communities	Jul-96	Jun-2010	(\$30,514)	(\$1,092)	(\$23,422)	(\$252)	(\$13)	(\$78)	(\$646)	(\$2,389)	(\$2,389)	(\$3,899)	(\$3,899)	(3,656)
Project Total:				\$15,837	\$25,141	(\$8,204)	(\$2)	(\$63)	(\$328)	(\$396)	(\$789)	(\$399)	\$1,111	\$1,306	(\$11,954)
1599 FINAL PAYMENTS & RELEASE OF RETAINAGE															
92217 5046 BHS-MIT	Umass-Amherst			\$217	\$217	\$0				\$0					\$0
92213 5943 BHS-Umass				267	0					0					\$0
Project Total:				\$484	\$484	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub-total: OTHER PROGRAMS				\$16,421	\$25,025	(\$9,204)	(\$2)	(\$63)	(\$328)	(\$396)	(\$789)	(\$399)	\$1,511	\$1,111	\$1,306
TOTAL WASTEWATER				\$1,059,915	\$384,625	\$715,063	\$22,007	\$19,526	\$17,202	\$15,143	\$73,958	\$52,699	\$58,126	\$127,988	\$134,418
															\$223,135

1599 FINAL PAYMENTS & RELEASE OF RETAINAGE															
92217 5046 BHS-MIT	Umass-Amherst			\$217	\$217	\$0				\$0					\$0
92213 5943 BHS-Umass				267	0					0					\$0
Project Total:				\$484	\$484	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub-total: OTHER PROGRAMS				\$16,421	\$25,025	(\$9,204)	(\$2)	(\$63)	(\$328)	(\$396)	(\$789)	(\$399)	\$1,511	\$1,111	\$1,306
TOTAL WASTEWATER				\$1,059,915	\$384,625	\$715,063	\$22,007	\$19,526	\$17,202	\$15,143	\$73,958	\$52,699	\$58,126	\$127,988	\$134,418
															\$223,135

WASTEWATER GRANT RECEIPTS AND LOAN FUND PROJECTIONS

FISCAL YEARS 1998 - 2000

Grant Assumptions

The Grant revenue cashflows are based upon the following assumptions regarding grant funding:

- **Federal Title II Construction Grants Program**

No new grants will be awarded. A limited amount of additional grant funding will be made available to cover increased costs of existing grant projects in order to close out the existing grants.
- **Special Federal Grants**

The federal government has appropriated \$654.5 million through June 30, 1997, in support of the Boston Harbor Project, including \$75 million appropriated in FY97. The cashflows have been prepared assuming that MWRA will receive no additional special federal grant appropriations.
- **Massachusetts Grant Program**

A limited amount of additional state grant funding will be made available to cover increased costs of existing grant projects in order to close out existing grants.

State Revolving Loan Fund Assumptions

The State Revolving Loan Fund (SRF) cashflow are based upon the following factors:

- Cashflow projections are included only for projects which are currently financed through the SRF and for projects for which we will borrow from the SRF during FY98.
- These cashflows do not include an estimated \$50 million SRF borrowing per year included in MWRA planning estimates for each year after FY98.

**WASTEWATER CONSTRUCTION
GRANT RECEIPTS FORECAST FY 1998-2007
(\$000)**

SOURCE:	PROJECT	Total Grant Amount	Projected Payments Thru FY97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	Total FY98	Total FY99	Total FY2000	Total FY2001	Total FY2002	Beyond FY2002
A. INTERCEPTION AND PUMPING:														
	BRAINTREE-WEMMOUTH RELIEF FAC.													
6311	P Fac Plan Phase 1 (Fed)	\$240	\$240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6311	P Fac Plan Phase 1 (State)	48	48	0	0	0	0	0	0	0	0	0	0	0
	Project Total:	\$288	\$288	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	NEW NEPONSET VALLEY R.S.													
6380	P Facilities Plan (State)	408	408	0	0	0	0	0	0	0	0	0	0	0
6381	P EIR/Supp. Fac Plan (State)	478	478	0	0	0	0	0	0	0	0	0	0	0
	Project Total:	\$887	\$887	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	WELLESLEY EXTENSION R.S.													
6346	C Study	324	324	0	0	0	0	0	0	0	0	0	0	0
6346	C Design/EIR/CSIRI (Fed)	2,346	1,655	691	0	0	0	0	0	0	0	0	0	0
6346	C Design/EIR/CSIRI (State)	3,687	3,675	12	0	0	0	0	0	0	0	0	0	0
5349	C Construction 1 (Fed)	4,686	4,068	630	0	0	0	0	0	0	0	0	0	0
6349	C Construction 1 (State)	7,383	7,164	219	0	0	0	0	0	0	0	0	0	0
6351	C Construction 2 (Fed)	1,686	1,602	84	0	0	0	0	0	0	0	0	0	0
6351	C Construction 2 (State)	2,650	2,634	16	0	0	0	0	0	0	0	0	0	0
6334	C Construction 3 (Fed)	2,397	2,163	234	0	0	0	0	0	0	0	0	0	0
6344	C Construction 3 (State)	3,767	3,512	255	0	0	0	0	0	0	0	0	0	0
6350	C Construction 4 (Fed)	1,687	1,656	31	0	0	0	0	0	0	0	0	0	0
6350	C Construction 4 (State)	2,652	2,520	132	0	0	0	0	0	0	0	0	0	0
6351	C Construction 5 (Fed)	1,881	1,811	70	0	0	0	0	0	0	0	0	0	0
6431	C Construction 6 (State)	2,956	2,835	121	0	0	0	0	0	0	0	0	0	0
6433	C Construction 7 (Fed)	4,260	0	4,260	0	0	0	0	0	0	0	0	0	0
6433	C Construction 7 (State)	6,685	0	6,685	0	0	0	0	0	0	0	0	0	0
	Project Total:	\$49,070	\$35,619	\$0	\$6,002	\$0	\$7,448	\$13,461	\$0	\$0	\$0	\$0	\$0	\$0
	FRAMINGHAM EXTENSION R.S.													
6318	C Fac Plan Update/EIR	742	742	0	0	0	0	0	0	0	0	0	0	0
6319	C Design/CSIRI	400	0	0	0	0	0	0	0	0	0	0	0	0
	Project Total:	\$1,142	\$1,142	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

**WASTEWATER CONSTRUCTION
GRANT RECEIPTS FORECAST FY 1998-2007**
(\$000)

SOURCE:	"REGULAR" GRANTS PROJECT	Total Grant Amount	Projected Payments Thr. FY97	Remaining Balance 08/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	BEYOND FY2002
FINAL PAYMENTS & RELEASE RETAINAGE														
6380 C	Design - East Boston (Fed)	1,085	1,085	0	0	0	0	0	0	0	0	0	0	0
6380 C	Design - East Boston (State)	69	69	0	0	0	0	0	0	0	0	0	0	0
6381 C	RI - East Boston (Fed)	2,378	0	0	0	0	0	0	0	0	0	0	0	0
6381 C	RI - East Boston (State)	1,514	1,514	0	0	0	0	0	0	0	0	0	0	0
6399 C	Study/Design - Metering (State)	1,121	1,090	31	0	0	0	0	31	0	0	0	0	0
6396 C	Construction 3 - Metering (State)	169	0	169	0	0	0	0	169	0	0	0	0	0
6356 C	Design/RI - Charlestown (Fed)	1,240	1,240	0	0	0	0	0	0	0	0	0	0	0
6356 C	Design/RI - Charlestown (State)	928	1,004	(76)	0	0	0	0	(76)	0	0	0	0	0
6367 C	Constr. - Charlestown (Fed)	9,351	8,579	773	0	0	0	0	773	0	0	0	0	0
6367 C	Constr. - Charlestown (State)	6,038	3,854	2,184	0	0	0	0	2,184	0	0	0	0	0
Project Total:		\$23,894	\$20,814	\$3,080	\$773	\$0	\$0	\$2,308	\$3,081	\$0	\$0	\$0	\$0	\$0
SUBTOTAL: INT & PUMP		\$76,250	\$68,749	\$16,631	\$773	\$6,002	\$0	\$9,768	\$16,632	\$0	\$0	\$0	\$0	\$0
COMPLETED PROJECTS														
6398 C	Construction 1 - Metering (State)	2,530	2,460	70	0	0	0	0	70	0	0	0	0	0
6401 C	Construction 2 - Metering (State)	584	584	0	0	0	0	0	0	0	0	0	0	0
6396 C	S. System Study (State)	1,639	1,639	0	0	0	0	0	0	0	0	0	0	0
6397 C	S. System Equipment (State)	627	627	0	0	0	0	0	0	0	0	0	0	0
6382 C	East Boston - Con (Fed)	10,486	10,486	0	0	0	0	0	0	0	0	0	0	0
6362 C	East Boston - Con (State)	7,035	7,035	(0)	0	0	0	0	0	0	0	0	0	0
6363 C	East Boston - Ninth. Term.(Fed)	4,060	4,060	0	0	0	0	0	0	0	0	0	0	0
6363 C	East Boston - Ninth. Term.(State)	2,779	2,779	0	0	0	0	0	0	0	0	0	0	0
6364 C	East Boston - Chel S.H. (Fed)	4,096	4,096	0	0	0	0	0	0	0	0	0	0	0
6364 C	East Boston - Chel S.H. (State)	2,684	2,684	0	0	0	0	0	0	0	0	0	0	0
Sub-Total: COMPLETED PROJECTS		\$36,622	\$36,461	\$70	\$0	\$0	\$0	\$70	\$70	\$0	\$0	\$0	\$0	\$0
B. TREATMENT:														
D. PRIMARY & SECONDARY TREATMENT FACILITY														
6626 CDM	Facilities Plan	9,657	9,288	369	0	0	0	369	369	0	0	0	0	0
Project Total:		\$9,657	\$9,288	\$369	\$0	\$0	\$0	\$369	\$369	\$0	\$0	\$0	\$0	\$0

**WASTEWATER CONSTRUCTION
GRANT RECEIPTS FORECAST FY 1998-2007**
(\$000)

SOURCE:	"REGULAR" GRANTS PROJECT	Total Grant Amount	Projected Payments Thr. Fy'97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	BEYOND FY2002
WATER TRANSPORTATION FACILITIES														
6623	CP-001 Marine Facilities @ DI (Fed)	9,266	9,266	0	0	0	0	0	0	0	0	0	0	0
6623	CP-001 Marine Facilities @ DI (State)	14,561	14,561	0	0	0	0	0	0	0	0	0	0	0
6617	DI. Pier-Sheet Pile (Fed)	413	413	0	0	0	0	0	0	0	0	0	0	0
6617	DI. Pier-Sheet Pile (State)	649	649	0	0	0	0	0	0	0	0	0	0	0
6618	DI. Pier-Sheet Pile (Fed)	1,469	1,469	0	0	0	0	0	0	0	0	0	0	0
6618	DI. Pier-Sheet Pile (State)	2,309	2,309	0	0	0	0	0	0	0	0	0	0	0
5497	Res. Insp. - DI. (Fed)	361	361	0	0	0	0	0	0	0	0	0	0	0
5497	Res. Insp. - DI. (State)	567	567	0	0	0	0	0	0	0	0	0	0	0
5521	Design - On-Island	639	639	0	0	0	0	0	0	0	0	0	0	0
Project Total:		\$30,234	\$30,234	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FINAL PAYMENTS & RELEASE RETAINAGE														
6440	C Design/CS - Clinton (Fed)	1,159	1,159	0	0	0	0	0	0	0	0	0	0	0
6440	C Design/CS - Clinton (State)	1,699	1,699	0	0	0	0	0	0	0	0	0	0	0
5561	C NImmed Design (Fed)	292	292	0	0	0	0	0	0	0	0	0	0	0
5561	C NImmed Design (State)	20	20	0	0	0	0	0	0	0	0	0	0	0
Project Total:		\$3,170	\$3,170	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub-total: TREATMENT		\$43,061	\$42,692	\$369	\$0	\$0	\$369	\$369	\$0	\$0	\$0	\$0	\$0	\$0

**WASTEWATER CONSTRUCTION
GRANT RECEIPTS FORECAST FY 1998-2007**
(\$'000)

SOURCE: "REGULAR" GRANTS	PROJECT	Total Grant Amount	Projected Payments Thru F'97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	Total FY98	Total FY99	Total FY2000	Total FY2001	Total FY2002	Beyond FY2002
COMPLETED PROJECTS:														
6612 C	DI Electrical Upgrade (Fed)	124	124	0	0	0	0	0	0	0	0	0	0	0
6612 C	DI Electrical Upgrade (State)	85	85	0	0	0	0	0	0	0	0	0	0	0
6613 C	DI Electrical Upgrade (Fed)	977	977	0	0	0	0	0	0	0	0	0	0	0
6613 C	DI Electrical Upgrade (State)	622	582	40	0	0	0	0	0	0	40	0	0	0
6452 C	DI P&P Const. (Fed)	16,646	15,956	690	0	0	0	0	0	0	0	0	0	0
6462 C	DI P&P Const. (State)	6,961	5,203	1,758	0	0	0	0	0	0	0	0	0	0
6463 C	DI P&P Constr Sys (Fed)	1,834	1,828	6	0	0	0	0	0	0	0	0	0	0
6463 C	DI P&P Constr Sys (State)	797	459	338	0	0	0	0	0	0	0	0	0	0
6461 C	DI P&P Design Allow (Fed)	1,062	1,062	0	0	0	0	0	0	0	0	0	0	0
6491 C	DI Sludge Thick Con (Fed)	1,303	1,303	0	0	0	0	0	0	0	0	0	0	0
6491 C	DI Sludge Thick Con (State)	261	261	0	0	0	0	0	0	0	0	0	0	0
6443 C	Construction 1 - Clinton (Fed)	10,169	10,169	0	0	0	0	0	0	0	0	0	0	0
6443 C	Construction 1 - Clinton (State)	18,898	18,898	(0)	0	0	0	0	0	0	0	0	0	0
6444 C	Construction 2 - Clinton (Fed)	172	172	0	0	0	0	0	0	0	0	0	0	0
6444 C	Construction 2 - Clinton (State)	261	261	0	0	0	0	0	0	0	0	0	0	0
6250 C	Clinton Design	1,333	1,333	0	0	0	0	0	0	0	0	0	0	0
6563 C	NI Immed Upgrade Con (State)	653	653	0	0	0	0	0	0	0	0	0	0	0
6563 C	NI Immed Upgrade Con (Fed)	131	131	0	0	0	0	0	0	0	0	0	0	0
6564 C	NI Immed Upgrade Con (State)	137	137	0	0	0	0	0	0	0	0	0	0	0
6564 C	NI Immed Upgrade Con (Fed)	27	27	0	0	0	0	0	0	0	0	0	0	0
6565 C	NI Immed Upgrade Con (State)	677	677	0	0	0	0	0	0	0	0	0	0	0
6566 C	NI Immed Upgrade Con (State)	135	135	0	0	0	0	0	0	0	0	0	0	0
6566 C	NI Immed Upgrade Con (Fed)	2,253	2,253	0	0	0	0	0	0	0	0	0	0	0
6566 C	NI Immed Upgrade Con (State)	451	451	0	0	0	0	0	0	0	0	0	0	0
Sub-Total: COMPLETED PROJECTS		\$66,868	\$63,136	\$2,832	\$0	\$0	\$0	\$0	\$2,832	\$0	\$0	\$0	\$0	\$0

**WASTEWATER CONSTRUCTION
GRANT RECEIPTS FORECAST FY 1998-2007**
(**\$000**)

SOURCE:	"REGULAR" GRANTS PROJECT	Total Grant Amount	Projected Payments Thr. FY87	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	BEYOND FY2002
C. RESIDUALS														
COMPLETED PROJECTS:														
6662 C Phase 1 Study	354	354	0	0	0	0	0	0	0	0	0	0	0	0
D. CSOs														
CSO CONTROL PROGRAM														
6791 C Planning/EIR (State)	1,122	1,122	0	0	0	0	0	0	0	0	0	0	0	0
COMPLETED PROJECTS:														
6786 C Comm Pt Design/CS (Fed)	128	128	0	0	0	0	0	0	0	0	0	0	0	0
6786 C Comm Pt Design/CS (State)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6789 C Comm Pt Construction (Fed)	2,709	2,709	0	0	0	0	0	0	0	0	0	0	0	0
6789 C Comm Pt Construction (State)	1,806	1,806	0	0	0	0	0	0	0	0	0	0	0	0
Project Total:		\$4,644	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WATER METER MODERNIZATION														
6710 Construction 1 (State)	755	0	755	0	0	0	755	755	0	0	0	0	0	0
Sub-total: DISTRIBUTION AND PUMPING	\$765	\$0	\$765	\$0	\$0	\$0	\$765	\$765	\$0	\$0	\$0	\$0	\$0	\$0
FEDERAL GRANTS GRAND TOTAL		\$103,699	\$96,228	\$7,470	\$773	\$6,002	\$0	\$0	\$6,774	\$696	\$0	\$0	\$0	(\$9)
STATE GRANTS GRAND TOTAL		\$124,007	\$110,919	\$13,088	\$0	\$0	\$0	\$10,962	\$10,962	\$2,336	\$0	\$0	\$0	\$0
REGULAR GRANTS GRAND TOTAL		\$227,706	\$207,148	\$20,568	\$773	\$6,002	\$0	\$10,952	\$17,726	\$2,332	\$0	\$0	\$0	(\$1)

WASTEWATER SPECIAL FEDERAL \$200M BHP GRANT
GRANT RECEIPTS FORECAST FY 1998 - 2007
(\$000s)

PROGRAM:	\$200 MILLION GRANT	Total Grant Amount	Projected Payments Thr. FY97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	BEYOND FY2002
B. TREATMENT														
12 D.I. PRIMARY & SECONDARY TREATMENT FACILITY														
5700 CP-105 Primary Clarifier Battery A&B	\$30,499	\$27,811	\$2,688	\$2,232	\$0	\$0	\$456	\$2,688	\$0	\$0	\$0	\$0	\$0	(\$0)
5742 CP-130 Primary Clarifier Battery C&D	43,988	43,331	657	0	0	0	657	657	0	0	0	0	0	0
5850 CP-152 Nut Island Headworks	34,954	30,372	4,581	1,019	1,814	0	0	2,833	0	1,748	0	0	0	0
SECONDARY CONSTRUCTION														
5484 CP-202 Secondary Reactor Bitry A&B	53,468	53,469	(0)	0	0	0	0	0	0	0	0	0	0	0
5744 CP-204 Disinfect Facility/Phase I Seawall	20,424	18,637	1,788	0	0	0	1,788	1,788	0	0	0	0	0	0
PRETREATMENT & PRIMARY DESIGN														
5532 DP-4 Nut Island Headworks	1,356	1,356	0	0	0	0	0	0	0	0	0	0	0	0
5529 DP-9 Primary Phase I	2,819	2,819	0	0	0	0	0	0	0	0	0	0	0	0
SECONDARY DESIGN														
5701 DP-28 Sec. Treat. Fac. Ph. 1&2	3,130	3,130	0	0	0	0	0	0	0	0	0	0	0	0
Unallocated Revenues	9,361	0	9,361	0	846	282	5,096	6,224	296	2,765	75	0	0	(\$0)
\$200M GRANT TOTAL:	\$200,000	\$180,925	\$19,075	\$3,251	\$2,661	\$282	\$7,997	\$14,190	\$286	\$4,513	\$75	\$0	0	(\$0)

**WASTEWATER SPECIAL FEDERAL "513" GRANTS
RECEIPTS FORECAST FY 1998-2007
(000's)**

PROGRAM: "513" GRANTS PROJECT	Total Grant Amount	Projected Payments Thr. FV97	Remaining Balance 06/30/97	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	BEYOND FY2002
D.I. PRIMARY & SECONDARY TREATMENT FACILITY												
FACILITIES PLANNING												
5526 Facilities Plan (C259-713-15)	\$2,211	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SITE FACILITIES CONSTRUCTION												
5536 CP-020 Asbestos Rmv'l Ft Dawes-SPS	\$362	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5539 CP-021 Demo Ft. Dawes Bunkers	3,443	0	0	0	0	0	0	0	0	0	0	0
5560 CP-023 Pump Sta Mods & Sewers	3,955	0	0	0	0	0	0	0	0	0	0	0
PROJECT TOTAL	\$7,750	\$1,760	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PRETREATMENT & PRIMARY CONSTRUCTION												
5541 CP-15 Inter-Island Tunnel	\$45,375	\$45,306	\$69	\$0	\$0	\$66	\$0	\$66	\$3	\$0	\$0	\$0
CONSTRUCTION MANAGEMENT												
5535 P/CM Services	\$167	\$167	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
LEAD DESIGN SERVICES												
5486 Geotech Svcs Marine Borings	\$7,280	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SITE FACILITIES DESIGN												
5528 DP-1 Early Site Prep	\$792	\$792	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SECONDARY DESIGN												
5531 DP-6 Effluent Outfall Tunnel	\$3,300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PROJECT TOTAL	\$66,886	\$66,816	\$69	\$0	\$0	\$66	\$0	\$66	\$3	\$0	\$0	\$0

**WASTEWATER SPECIAL FEDERAL "513" GRANTS
RECEIPTS FORECAST FY 1998-2007
(000's \$)**

PROGRAM: "513" GRANTS	PROJECT	Total Grant Amount	Projected Payments	Remaining Balance	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	Beyond FY2002
WATER TRANSPORTATION FAC.														
REVERE SUGAR														
5895	Asbestos - Revere Sugar	\$362	\$362	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NUT ISLAND														
5533	Res. Insp. - N.I.	\$380	\$380	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5515	CP-150 Marine Facilities @ NI	3,964	0	0	0	0	0	0	0	0	0	0	0	0
DESIGN														
5521	Design - On Island Marine	\$4,344	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	PROJECT TOTAL	\$5,055	\$348	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BHP Total		\$71,940	\$71,870	\$70	\$0	\$0	\$66	\$0	\$66	\$3	\$0	\$0	\$0	\$0
Sub-total: TREATMENT		\$71,940	\$71,870	\$70	\$0	\$0	\$66	\$0	\$66	\$3	\$0	\$0	\$0	\$0
D. CSO's	CSO CONTROL PROGRAM													
5791 P	Planning/ER	\$457	\$457	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5716 P	Master Planning	913	913	(0)	0	0	0	0	0	0	0	0	0	(0)
	Project Total:	\$1,370	\$1,371	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$0)
Sub-total: CSO's		\$1,370	\$1,371	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$0)
COMPLETED PROJECTS														
5755 P	Comm Pt Design/ICS	\$389	\$382	\$7	\$0	\$0	\$7	\$0	\$7	\$0	\$0	\$0	\$0	\$0
5759 P	Comm Pt Design/Construction	718	718	0	0	0	0	0	0	0	0	0	0	0
	Project Total:	\$1,107	\$1,100	\$7	\$0	\$0	\$7	\$0	\$7	\$0	\$0	\$0	\$0	\$0
"513" GRANTS GRAND TOTAL:		\$74,417	\$77	\$0	\$0	\$73	\$0	\$73	\$3	\$0	\$0	\$0	\$0	\$0

**WASTEWATER SPECIAL FEDERAL \$250M BHP GRANT
RECEIPTS FORECAST FY 1998 - 2007**
(^{\$000})

SOURCE:	\$250 MILLION GRANT	Total Grant Amount	Projected Payments Thru. FY97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	B. BEYOND FY2002
B. TREATMENT														
SECONDARY CONSTRUCTION														
5492 CP-203 Clarifier Batteries A&B	\$144,282	\$132,723	\$11,559	\$4,113	\$232	\$0	\$0	\$4,345	\$0	\$7,214	\$0	\$0	\$0	(0)
5493 CP-303 Residual Trt Fac. Phi Sec A&B	97,096	87,345	9,751	2,396	1,918	1,203	840	6,358	0	3,394	0	0	0	(0)
SECONDARY DESIGN														
5701 Design Allowance (CP-203)	5,090	5,090	0	0	0	0	0	0	0	0	0	0	0	0
5758 Design Allowance (CP-303)	3,532	3,532	0	0	0	0	0	0	0	0	0	0	0	0
\$250M GRANT TOTAL:	\$250,000	\$228,680	\$21,310	\$6,509	\$2,150	\$1,203	\$840	\$10,703	\$0	10,608	\$0	\$0	\$0	(0)

**WASTEWATER SPECIAL FEDERAL \$75M BHP GRANT
GRANT RECEIPTS FORECAST FY 1988 - 2007**
(**\$000**)

PROGRAM:	\$75 MILLION GRANTS	Total Grant Amount	Projected Payments Thru Fy'97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	Total Fy'98	Total Fy'99	Total Fy'2000	Total Fy'2001	Total Fy'2002	Beyond FY2002
B. TREATMENT														
D.I. PRIMARY & SECONDARY TREATMENT FACILITY														
SITE FACILITIES CONSTRUCTION														
5474 CP-043 Site Prep/Demo Exist Plant	\$22,953	\$22,273	\$680	\$0	\$0	\$0	\$0	\$0	\$680	\$0	\$0	\$0	\$0	\$0
SECONDARY CONSTRUCTION														
5484 CP-202 Secondary Rec.Batt A&B	9,515	2,757	6,758	593	479	185	0	0	1,257	5,501	0	0	0	0
5484 CP-202 Unallocated Contingency	1,113	0	1,113	0	0	0	0	0	0	1,113	0	0	0	0
6159 CP-280 2ndary C Reactr & Clarifl Bat	28,525	3,541	24,984	6,652	7,815	9,090	0	0	23,598	0	0	1,426	0	0
SECONDARY DESIGN														
5701 DP-028 CP-043 Design Allowance	1,496	1,496	0	0	0	0	0	0	0	0	0	0	0	0
ON-ISLAND RESIDUALS CONSTRUCTION														
5493 CP-393 Residual Trt.Fac.Phi Sec A&B	761	0	761	0	0	0	0	0	0	761	0	0	0	0
Contingency	4,162	0	4,162	0	0	0	0	0	0	4,162	0	0	0	0
C. RESIDUALS														
RESIDUALS MANAGEMENT FACILITIES														
6012 Inside Construction	6,121	375	5,746	2,098	3,342	0	0	0	5,440	0	0	306	0	0
5667 Con.Ser./Res. Inspection	355	122	232	133	61	0	0	0	214	0	0	18	0	0
\$75M GRANT TOTAL:	\$75,000	\$30,563	\$44,437	\$6,476	\$11,717	\$9,275	\$0	\$30,468	\$12,217	\$0	\$1750	\$0	\$0	\$0

**WASTEWATER SPECIAL FEDERAL \$50M BHP GRANT
RECEIPTS FORECAST FY 1998 - 2007**
(\$000)

SOURCE:	\$50 MILLION GRANT	Total Grant Amount	Projected Payments Thr. FY97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	Beyond FY2002
D.I. PRIMARY & SECONDARY TREATMENT FACILITY														
SITE FACILITIES CONSTRUCTION														
5474 CP-043 Late Site Prep/Demo Exist Pmt	\$15,600	\$15,600	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PRETREATMENT & PRIMARY CON.														
5541 CP-151 Inter-Island Tunnel	34,400	30,415	3,985	0	0	0	0	0	0	3,985	0	0	0	(0)
\$50M GRANT TOTAL:	\$50,000	\$46,015	\$3,985	\$0	\$0	\$0	\$0	\$0	\$0	\$3,985	\$0	\$0	\$0	(0)

STATE WATER TRANSPORTATION GRANTS
RECEIPTS-FORECAST FY 1998 - 2007
(\$000)

SOURCE:	STATE WATER GRANTS	Total Grant Amount	Projected Payments Thr. FY97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	BEYOND FY2002
WATER MAIN RELOCATION/CHELSEA RVR														
68023 6135 Planning/Design/CARI	\$1,097	\$0	\$1,097	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,097	\$0	\$0	\$0
STATE WATER TRANS. GRANT TOTAL:	\$1,097	\$0	\$1,097	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,097	\$0	\$0	\$0

**WASTEWATER STATE REVOLVING LOAN FUND
RECEIPTS FORECAST FY 1998 - 2007**
(\$000)

SOURCE:	STATE REVOLVING LOAN FUND PROJECT	Total Loan Amount	Projected Payments Thru, FY97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	Beyond FY2002
A. INTERCEPTION AND PUMPING														
	1 QUINCY PUMP FACILITIES													
5404 P	Design	\$1,979	\$1,110	\$668	\$25	\$0	\$417	\$119	\$561	\$209	\$0	\$0	\$0	\$99
	Project Total:	\$1,979	\$1,110	\$668	\$25	\$0	\$417	\$119	\$561	\$209	\$0	\$0	\$0	\$99
3 NEW NEPONSET VALLEY R.S.														
5385 C	Construction 1	\$5,189	\$5,189	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$0)
5390 C	Construction 2	2,547	2,547	0	0	0	0	0	0	0	0	0	0	0
5394 C	Construction 3	3,264	3,264	(0)	0	0	0	0	0	0	0	0	0	0
5935 C	Construction 4	2,777	2,777	(0)	0	0	0	0	0	0	0	0	0	0
5389 C	Construction 5	9,528	9,433	95	0	0	95	0	95	0	0	0	0	0
	Project Total:	23,304	\$23,209	\$95	\$0	\$0	\$95	\$0	\$95	\$0	\$0	\$0	\$0	\$0
6 FRAMINGHAM EXTENSION R.S.														
5319	Construction Serv/Res. Inspect.	\$881	\$0	\$681	\$436	\$0	\$349	\$95	\$881	\$0	\$0	\$0	\$0	\$0
5320 C	Construction 1	6,994	0	6,994	4,814	0	2,180	0	6,994	0	0	0	0	0
5322 C	Construction 2	5,063	0	5,063	3,272	0	1,771	20	5,063	0	0	0	0	0
5323 C	Construction 3	6,762	0	6,762	2,378	0	4,204	181	6,762	0	0	0	0	0
	Project Total:	\$19,700	\$0	\$19,700	\$10,900	\$0	\$8,504	\$295	\$19,699	\$0	\$0	\$0	\$0	\$1
9 NORTH METRO TRUNK SEWER														
5339 C	Construction	\$13,500	\$0	\$13,500	\$2,700	\$0	\$9,123	\$930	\$12,753	\$72	\$675	\$0	\$0	\$0
	Project Total:	\$13,500	\$0	\$13,500	\$2,700	\$0	\$9,123	\$930	\$12,753	\$72	\$675	\$0	\$0	\$0
	SUBTOTAL: INT & PUMP	\$58,483	\$24,319	\$34,164	\$13,625	\$0	\$18,139	\$1,344	\$33,103	\$281	\$675	\$0	\$0	\$100

WASTEWATER STATE REVOLVING LOAN FUND
RECEIPTS FORECAST FY 1998 - 2007

(\$000)

SOURCE:	STATE REVOLVING LOAN FUND PROJECT	Total Loan Amount	Projected Payments Thr. Fy97	Remaining Balance 06/30/97	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	BEYOND FY2002
B. TREATMENT													
12 D.I. PRIMARY & SECONDARY TREATMENT FACILITY													
SITE FACILITIES CONSTRUCTION													
5601 CP-022 Earthworks/Lndfl/Roadways	\$16,825	\$16,825	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5640 CP-030 Disposal of Excess Till	14,077	14,077	0	0	0	0	0	0	0	0	0	0	0
Project Total:	\$30,903	\$30,902	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PRETREATMENT & PRIMARY CONSTRUCTION													
5454 CP-160 Ancil.D.I.Mods. Ph1	\$10,588	\$9,203	\$1,385	\$0	\$0	\$716	\$93	\$809	\$576	\$0	\$0	\$0	\$0
Project Total:	\$10,588	\$9,203	\$1,385	\$0	\$0	\$716	\$93	\$809	\$576	\$0	\$0	\$0	\$0

SECONDARY CONSTRUCTION													
6180 CP-211 Ancillary Modifications Ph.III	\$6,432	\$0	\$6,432	\$0	\$0	\$4,565	\$1,868	\$6,432	\$0	\$0	\$0	\$0	\$0
5637 CP-282 Effluent Outfall Tunnel-TBM	\$9,000	\$9,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5637 CP-282 Effluent Outfall Tunnel-Shaft	15,355	15,355	0	0	0	0	0	0	0	0	0	0	0
5637 CP-282 Effluent Outfall Tunnel	75,000	75,000	0	0	0	0	0	0	0	0	0	0	0
5637 CP-282 Effluent Outfall Tunnel	49,608	49,608	0	0	0	0	0	0	0	0	0	0	0
5637 CP-282 Effluent Outfall Tunnel	44,647	44,647	(0)	0	0	0	0	0	0	0	0	0	0
5637 CP-282 Effluent Outfall Tunnel	40,000	40,000	32,811	0	7,189	0	40,000	0	0	0	0	0	0
5637 CP-282 Effluent Outfall Tunnel	21,700	0	21,700	0	0	279	1,895	2,174	6,761	12,766	0	0	0
Project Total:	\$256,310	\$193,610	\$61,700	\$32,811	\$0	\$7,468	\$1,895	\$42,174	\$6,761	\$12,766	\$0	\$0	\$0

PERMANENT UTILITIES CONSTRUCTION													
5615 CP-401 Off Island Water Line	\$9,350	\$9,350	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5710 CP-427 Mn 13.8 Swr. Blde&Dls/7rd Util.	20,388	20,388	0	0	0	0	0	0	0	0	0	0	0
Project Total:	\$29,738	\$29,738	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

WASTEWATER STATE REVOLVING LOAN FUND
RECEIPTS FORECAST FY 1998 - 2007

Source:	STATE REVOLVING LOAN FUND PROJECT	Total Loan Amount	Projected Payments Thr. F197	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	Beyond FY2002
CONSTRUCTION SUPPORT SERVICES														
5696	CP-902 Construction Rds & Utilities	\$5,113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5695	CP-903 Fuel Facility	1,658	1,658	0	0	0	0	0	0	0	0	0	0	0
Project Total:		\$6,771	\$6,770	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

CONSTRUCTION MANAGEMENT														
5535	P/CM Services (D.J.ESP)	\$220	\$220	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5622	P/CM Services (D.J.ESP)	458	458	0	0	0	0	0	0	0	0	0	0	0
Project Total:		\$678	\$678	\$0										

WATER TRANSPORTATION FAC.														
FORE RIVER STAGING AREA (FRSA)														
5524	CP-002 On-Shore Marine Fcty Quincy	\$6,966	\$6,966	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5894	CP-010 Asbestos & Elec Cbl Rmv, FRSA	423	423	0	0	0	0	0	0	0	0	0	0	0
5508	CP-011 Demolition @FRSA	237	237	0	0	0	0	0	0	0	0	0	0	0
5514	CP-012 Marine & On-Shore Fcty FRSA	5,614	5,614	0	0	0	0	0	0	0	0	0	0	0
Project Total:		\$13,240	\$13,240	\$0										

SQUANTUM POINT														
5631	CP-005 Dredging at Squantum Point	\$332	\$332	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5598	CP-013 Per Ferry @Squantum Pt Pk	1,642	1,642	(0)	0	0	0	0	0	0	0	0	0	(0)
5634	CP-014 Upland Fcty @Squantum Pt	1,835	1,835	0	0	0	0	0	0	0	0	0	0	0
Project Total:		\$3,809	\$3,809	(0)	\$0	(0)								
Project Sub-total:		\$17,049	\$17,049	\$0										

SUBTOTAL: TREATMENT														
	\$357,468	\$287,950	\$69,517	\$32,811	\$0	\$12,748	\$3,866	\$49,446	\$7,337	\$12,766	\$0	\$0	\$0	\$0

**WASTEWATER STATE REVOLVING LOAN FUND
RECEIPTS FORECAST FY 1998-2007**
(**\$000**)

SOURCE:	STATE REVOLVING LOAN FUND PROJECT	Total Loan Amount	Projected Payments Thr. FY97	Remaining Balance 06/30/97	Jul-Sep 1997	Oct-Dec 1997	Jan-Mar 1998	Apr-Jun 1998	TOTAL FY98	TOTAL FY99	TOTAL FY2000	TOTAL FY2001	TOTAL FY2002	BEYOND FY2002
D. CSO's														
6220	N. Dor Bay Res. Ch Conduits & P.S. (Eng.)	\$3,540	\$0	\$3,540	\$0	\$0	\$2,023	\$1,517	\$3,540	\$0	\$0	\$0	\$0	\$0
6155	Sewer Separation/Fox Pt. BOS 088-089 (Eng.)	2,429	0	2,429	740	0	1,532	158	2,429	0	0	0	0	0
6247	Sewer Separation/Fox Pt. BOS 088-089	342	0	342	31	0	146	165	342	0	0	0	0	0
6154	Sewer Separation/Com.Pt. BOS 080 (Eng.)	2,608	0	2,608	1,598	0	887	123	2,608	0	0	0	0	0
6248	Sewer Separation/Com.Pt. BOS 080	48	0	48	8	0	24	16	48	0	0	0	0	0
6156	Sewer Separation/BOS 093-095 (Eng.)	739	0	739	160	0	251	327	739	0	0	0	0	0
6160	BOS 093-095 (Com.)	2,356	0	2,356	50	0	801	1,505	2,356	0	0	0	0	0
6153	Sewer Separation/BOS 002 (Engineer)	731	0	731	32	0	249	450	731	0	0	0	0	0
6249	Sewer Separation/BOS 002 (Construct.)	124	0	124	41	0	42	41	124	0	0	0	0	0
TBD	Cambridge Hydro Rel/CAM005 BOS017 (eng.)	74	0	74	0	0	32	42	74	0	0	0	0	0
6253	Interception Connection/BOS032 (Eng.)	91	0	91	0	0	91	0	91	0	0	0	0	0
6255	Sewer Separation/CAM 002-004 (Con.)	3,039	0	3,039	0	0	3,039	0	3,039	0	0	0	0	0
6261	Chelsea Tr Branch Sew Rel/CHE008 (Eng.)	764	0	764	0	0	518	246	764	0	0	0	0	0
6168	BWSC Floatables Controls (Eng.)	73	0	73	20	0	53	0	73	0	0	0	0	0
6162	Cambridge Floatables Controls (Eng.)	16	0	16	0	0	16	0	16	0	0	0	0	0
6123	Upgrde CSO's/WRA Float Contrl (Eng.)	2,375	0	2,375	420	0	1,670	286	2,375	0	0	0	0	0
6268	Upgrde CSOs/WRA Float Contrl (Con #1)	2,394	0	2,394	0	0	485	1,910	2,394	0	0	0	0	0
6269	Upgrde CSOs/WRA Float Contrl (Con #2)	1,706	0	1,706	0	0	998	708	1,706	0	0	0	0	0
6270	Upgrde CSOs/WRA Float Contrl (Con #3)	16	0	16	0	0	0	16	16	0	0	0	0	0
Subtotal	CSO Control Design/CSRI	13,441	0	13,441	2,969	0	7,322	3,150	13,441	0	0	0	0	0
Subtotal	CSO Control Construction	10,025	0	10,025	130	0	5,535	4,360	10,025	0	0	0	0	0
SUBTOTAL: CSO's		\$23,465	\$0	\$23,465	\$3,100	\$0	\$12,856	\$7,509	\$23,465	\$0	\$0	\$0	\$0	\$0
SRF GRAND TOTAL:		\$439,417		\$312,270	\$127,147	\$49,535	\$0	\$43,744	\$12,710	\$105,988	\$7,618	\$13,441	\$0	\$100

**WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007**

(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	Remaining Balance			FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
							JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998						
F. DRINKING WATER QUALITY IMPROVEMENTS:															
WALNUT HILL WATER TREATMENT PLANT															
53293 5023 Study 1	CH2M Hill	Jan-88	Feb-89	\$444	\$444	\$0									
53294 5024 Study 2	CH2M Hill	Jul-89	2,448	2,369	79										
53375 6182 AWWARF Study	Black & Veatch	Dec-96	Jun-98	200	27	173	17	17	17	17	0	79			\$0
53376 6206 Open Res. Qual. Study	TBS	Feb-98	Feb-98	898	0	898						68	37		0
53367 6118 Crypto Inactivation Study	SNWA	Feb-97	Oct-98	150	28	122	20	20	20	20	20	111	454	259	0
53364 6126 Dist. Water Quality Study	Deleted	Deleted	Deleted	0	0	0						80	42		0
53390 6385 Const. Interim Disinfection TBS	TBS	Feb-98	Dec-98	1,412	0	1,412						0			0
53391 6397 Const Immediate Disinf.	TBS	Jul-97	Jun-98	100	0	100						208	350	558	854
53393 6406 Immed. Disinf. MECC	TBS	Jul-97	Jun-98	50	0	50						50	50	100	
53303 6157 Permit Fees	DEP	Jun-98	46	12	34	16	6	6	6	6	25	25	50		0
53300 5987 Technical Assistance	Various	Jan-93	May-2005	18	18	0						0	34	0	0
53296 5042 Walnut Hill WTP:															
53301 5017 Design/ESDC	CDM	Nov-93	Jun-97	5,634	0	5,634						3,102	2,050	2,092	9,336
53302 5016 EIR/Concept. Des	CDM	Oct-96	May-2004	24,905	3,922	20,883						2,613	1,119	1,669	2,444
53377 6207 Construction	TBS	Nov-98	May-2004	343,102	0	343,102						0	40,884	79,076	103,358
53304 6134 Des Mgmt Supt	McNeil & Eddy	Aug-97	Jan-98	1,702	232	1,470						232	928	542	120,774
53378 6208 CM/RI	TBS	May-98	Apr-2005	30,608	0	30,608						335	1,002	4,493	0
53379 6209 Water Qual. Dec. Support	Deleted	Deleted	Deleted	0	0	0						0		6,492	9,851
53368 6120 Equipment Prepurchase	Deleted	Deleted	Deleted	0											0
Project Total:		\$41,817	\$12,886	\$398,931	\$3,387	\$2,325	\$2,724	\$3,238	\$1,674	\$5,654	\$46,802	\$87,237	\$113,237	\$134,327	\$0

QUABBIN WATER TREATMENT PLANT															
53363 6043 Design/CARI	CH2M Hill	May-95	Jul-2000	2,504	607	1,697	130	130	130	130	520	644	671	62	0
53382 6212 Construction	TBS	Aug-98	Jul-2000	3,146	0	3,146					0	1,441	1,564	141	0
53381 6211 Land	TBS	Jun-97	Jul-98	53	0	53					53	0			0
53380 6210 Permit Fee	DEP	Jul-96	Aug-98	5	5	0					0	0			0
Project Total:		\$5,708	\$612	\$5,096	\$163	\$130	\$130	\$130	\$130	\$130	\$73	\$2,085	\$2,235	\$203	\$0

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru Fy97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002		
WATERSHED PROTECTION																		
53357 6144 Holden/W. Boylston Swr	MDC Watershed Mgm	Apr-97	Jun-2000	8,500	\$2,000	\$6,500					\$3,000	\$3,000	\$2,500	\$1,000		\$0		
53356 6002 Sudbury Resvr Proj. Study	Comprehensive Envir.	Apr-95	102	102	0	0					0	0	\$2,500	\$1,000	\$0	0		
Project Total:				\$8,602	\$2,102	\$6,500										\$0		
NORUMBEAGA COVERED STORAGE																		
53287 5041 Preliminary Design	CDM	Sep-92	Mar-97	2,038	1,868	170					170	560	1,120	1,200	1,249	0		
53364 6057 Design/CA/RI	TBS	Dec-97	Aug-2004	7,849	0	7,849					0	0	240	240	240	2,600		
53383 6213 Construction	TBS	Jul-2000	Aug-2004	100,987	0	100,987					0	0	0	0	24,493	50,494		
53372 6145 Land	Various	Sep-98	Jan-2000	234	0	234					0	0	0	0	234	0		
53385 6115 Appraisal	Various	Nov-95	Jul-98	25	14	11					6	6	5	5	0	0		
Project Total:				\$111,133	\$1,882	\$109,251					\$240	\$246	\$736	\$1,125	\$1,354	\$25,693	\$27,246	
NASH HILL COVERED STORAGE																		
53392 5049 Preliminary Design	Weston & Sampson	Jan-93	Dec-94	\$368	\$388	\$0					\$0	\$0				\$0		
53362 6007 Design/CA/RI	Montgomery Watson	Oct-95	Oct-99	\$1,324	518	806					86	86	86	86	344	117	0	
53370 6133 Construction	TBS	Aug-97	Oct-99	\$13,237	0	13,237					1,471	1,471	1,471	1,471	5,393	5,383	0	
Project Total:				\$14,929	\$886	\$14,043					\$1,066	\$1,557	\$1,557	\$1,557	\$5,737	\$6,228	\$2,078	\$0
BLUE HILLS COVERED STORAGE																		
68025 6139 EIR/Prelim. Design	Rizzo	Apr-97	Jun-99	\$768	\$81	\$687					\$89	\$89	\$89	\$89	\$356	\$331	\$0	
53384 6214 Final Design/CA/RI	TBS	May-2000	Mar-2005	2,992	0	2,992					0	0	0	0	0	0	1,929	
53386 6216 Construction	TBS	Mar-2003	Mar-2005	23,936	0	23,936					0	0	0	0	0	0	23,936	
53385 6215 DEP/Permit Fees	Various	Mar-2002	Feb-2003	4	0	4					0	0	0	0	0	0	2	
Project Total:				\$27,700	\$81	\$27,619					\$89	\$89	\$89	\$89	\$356	\$331	\$490	\$25,867

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-SEP 1997		OCT-DEC 1997		JAN-MAR 1998		APR-JUN 1998		FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002	
							1997	1997	1997	1998	1998	1998	1998	1998							
BEAR HILL COVERED STORAGE																					
53388 8218 Feasibility/EIR/RPD	TBS	Jan-2004	Dec-2005	\$542	\$0	\$542										\$0	\$0				\$542
53389 8219 FDCA/RI	TBS	Jan-2006	Dec-2011	542	0	542										0	0				542
53387 8217 Construction	TBS	Jan-2009	Dec-2011	4,335	0	4,335										0	0				4,335
Project Total:				\$5,419	\$0	\$5,419									\$0	\$0	\$0	\$0	\$0	\$5,419	
FELLS COVERED STORAGE																					
67711 5070 Des/C/SRI -Fells Res	Klein & Hoffman	May-92	May-99	2,856	1,543	1,315															
67713 5088 Const.-Fells Reserv	TBS	Feb-97	May-99	13,156	2,349	10,869	1,510	1,72	170	1,110	1,510	1,510	1,510	1,510							0
67715 5130 DEP Permit Fees	DEP	Jan-93	Dec-94	4	0											0					0
Project Total:				\$16,020	\$3,896	\$12,124	\$1,682	\$1,682	\$1,290	\$1,682	\$1,682	\$1,682	\$1,682	\$1,682	\$0	\$0	\$0	\$0	\$0	\$0	
FINAL PAYMENTS & RELEASE OF RETAINAGE																					
Interim Corrosion Control:																					
53303 5068 Design/CA/R Wachusett	CHM Hill	Jul-93	Jun-97	\$1,782	\$1,782	\$0										\$0					\$0
53360 6003 ICC Const. Wachusett	D & C Construction	Dec-94	Jun-96	6,483	6,483	0										0					0
53366 6116 ICC Const. - Northboro	Various	Sep-96	Jun-97	120	120	0									0					0	
53235 5004 DEP Source Approval	Town of Norwood			63	63	0									0					0	
FINAL PAYMENTS: DRINKING WATER QUALITY IMPROVEMENTS																					
SUB TOTAL: DRINK. WAT. QUALITY				\$609,776	\$30,783	\$578,983	\$6,577	\$5,863	\$6,020	\$9,942	\$28,402	\$23,721	\$53,532	\$113,623	\$140,978	\$218,707					

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002	
				6/30/97		\$0	0	1,915	296	0	365	1,961	1,459	1,459	1,459	\$0	
G. TRANSMISSION: METROWEST WATER SUPPLY TUNNEL																	
5043 Study - Crons. - Sud. Pipe Br.	Ander Nichols D&C	Jun-84 Nov-91 Jun-92 Jul-2005	Oct-89 \$415 296 0	\$415	\$0	\$0	0	0	0	0	0	0	0	0	0	0	
50786 5048 Cons. - Sud. Pipe Br.	Spelidou	Apr-92 Apr-2003	144,537 1,201	35,117 23,916 5,668 138,871	11,201 715 5,216 9,827	1,951 365 5,216 11,992	1,951 21,364 5,216 34,138	1,459 21,773 24,202 62,648	1,459 24,729 47,612 33,975	1,459 24,202 47,612 33,975	1,459 24,729 47,612 33,975	1,459 24,729 47,612 33,975	1,459 24,729 47,612 33,975	1,459 24,729 47,612 33,975	1,459 24,729 47,612 33,975	3,404 15,648 10,427 0	
50785 5044 Design/ER-Tunnel/ESDC	MetroWest Tunnelers	Jun-96 Feb-2003	155 Midd. Tunnel Seg. - CP1 155 Midd. Tunnel Seg. - CP2	253,142 47,892	205,260 12,000 0	7,965 12,000 857	4,754 2,812 1,741	4,754 2,284 2,284	4,754 2,284 2,284								
50788 5054 West. Tunnel Seg. - CP1	Shea, Taylor, Healy	Aug-97 Feb-99 Feb-99 Oct-2002	5,809 12,000 12,000 43,578	12,000 0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	
60013 6055 Midd. S/AR/Bore - 3A	TBS	Feb-99	5,809	12,000	0	0	0	0	0	0	0	0	0	0	0	0	
60015 6059 Shaft S/AR/Bore - 3A	TBS	Feb-99	5,809	12,000	0	0	0	0	0	0	0	0	0	0	0	0	
60040 6374 East Tunnel Segment - 3B	TBS	Apr-2000 Nov-2001	1,200 0	1,200 0	1,821 1,821	0	1,821	0	0	0	0	0	0	0	0	0	
60016 6060 Surface Study - CP 4	TBS	Sep-96 Jun-97 Jun-2004 Jul-2005	5,000 1,316 13,833 0	5,000 1,316 13,833 0	0 0 1,020 1,020	0	0	0	0	0	0	0	0	0	0	0	
60016 6060 Surface Study - CP 4	TBS	Sep-96 Jun-97 Jun-2004 Jul-2005	5,000 1,316 13,833 0	5,000 1,316 13,833 0	0 0 1,020 1,020	0	0	0	0	0	0	0	0	0	0	0	
60016 6056 MD Salt Sheds - CP 5	TBS	Mar-2003 Oct-2003	6,204	6,204	0	0	0	0	0	0	0	0	0	0	0	0	
60031 6205 Huultun Int/NSP - CP 6	TBS	Mar-2003 Oct-2003	6,204	6,204	0	0	0	0	0	0	0	0	0	0	0	0	
60030 6204 Test & Disinfect - CP7	TBS	Sep-97 Oct-97	6,204	6,204	0	0	0	0	0	0	0	0	0	0	0	0	
60029 6209 Water Tanks - CP8	TBS	Oct-97 Oct-2004	5,284	31,247	5,382	26,865	1,118	1,411	1,284	1,272	5,085	5,386	5,103	5,207	3,555	2,549	
50799 5284 Construction Mgt/RU	Stone & Webster	Apr-95 Apr-96 Apr-96 Mar-2005	1,200 1,233 1,233 0	1,200 1,233 1,233 0	0 0 0 0	0	0	0	0	0	0	0	0	0	0	0	
55086 5141 Huultun Study	Simpson Gumpertz et al	Aug-95 Aug-96 Aug-96 Aug-96	1,200 1,233 1,233 0	1,200 1,233 1,233 0	0 0 0 0	0	0	0	0	0	0	0	0	0	0	0	
60022 6128 Huultun Leak Repair	Green Environmental	Aug-96 Aug-96 Aug-96 Aug-96	1,200 1,233 1,233 0	1,200 1,233 1,233 0	0 0 0 0	0	0	0	0	0	0	0	0	0	0	0	
60028 6139 Land Acq.	Various	Oct-95 Jun-96 Jun-96 Jun-96	1,200 1,233 1,233 0	1,200 1,233 1,233 0	0 0 0 0	0	0	0	0	0	0	0	0	0	0	0	
55085 5139 Land Acq.	Various	Oct-95 Jun-96 Jun-96 Jun-96	1,200 1,233 1,233 0	1,200 1,233 1,233 0	0 0 0 0	0	0	0	0	0	0	0	0	0	0	0	
55084 5976 Technical Assistance	DEP	Oct-94 Apr-97 Apr-97 Apr-97	1,200 45 45 45	1,200 45 45 45	0 4 4 4	0	0	0	0	0	0	0	0	0	0	0	
60020 6111 Professional Services	Various	Nov-95 Apr-96 Apr-96 Jun-2003	500 220 220 2,547	500 220 220 948	35 35 35 948	35 35 35 948	35 35 35 948	35 35 35 948	35 35 35 948	35 35 35 948	35 35 35 948	35 35 35 948	35 35 35 948	35 35 35 948	35 35 35 948	239	
60023 6129 Framingham MOU	Town of Framingham	2,547 1,200 1,200 1,200	1,200 1,200 1,200 1,200	1,200 1,200 1,200 1,200	38 38 38 38	980 980 980 980	272 272 272 272	0 0 0 0	0 0 0 0	0 0 0 0	637 637 637 637	69 69 69 69	69 69 69 69	69 69 69 69	69 69 69 69	69 69 69 69	
60039 6387 MOA-Weston	Town of Southborough	3,111 Jun-98 Jun-98 Jun-98	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	0 150 150 150	
60038 6366 MOU-Southborough	Anderson Nichols	4,266 Jun-98 Jun-98 Jun-98	6063 6063 6063 6063	6063 6063 6063 6063	498 498 498 498	241 241 241 241	60 60 60 60	60 60 60 60	60 60 60 60	60 60 60 60	60 60 60 60	60 60 60 60	60 60 60 60	60 60 60 60	60 60 60 60	0 0 0 0	
60024 6130 Loc. Sup Cont Constr	TBS	5,809 Jun-98 Jun-98 Jun-98	1,200 1,200 1,200 1,200	1,200 1,200 1,200 1,200	82 82 82 82	3,413 3,413 3,413 3,413	853 853 853 853	853 853 853 853	853 853 853 853	853 853 853 853	853 853 853 853	853 853 853 853	853 853 853 853	853 853 853 853	853 853 853 853	0 0 0 0	
60025 6131 Loc. Sup Cont Lega/Easeme	TBS	5,809 Jun-98 Jun-98 Jun-98	1,200 1,200 1,200 1,200	1,200 1,200 1,200 1,200	255 255 255 255	16 16 16 16	66 66 66 66	66 66 66 66	66 66 66 66	66 66 66 66	17 17 17 17	17 17 17 17	17 17 17 17	17 17 17 17	17 17 17 17	0 0 0 0	
60018 6087 Community Tech. Asst.	MAPC	5,809 Jun-98 Jun-98 Jun-98	1,200 1,200 1,200 1,200	1,200 1,200 1,200 1,200	395 395 395 395	1,267 1,267 1,267 1,267	480 480 480 480	480 480 480 480	480 480 480 480	480 480 480 480	1,920 1,920 1,920 1,920	1,920 1,920 1,920 1,920	1,920 1,920 1,920 1,920	1,920 1,920 1,920 1,920	1,920 1,920 1,920 1,920	0 0 0 0	
60021 6122 Owner Controlled Insurance	Johnson, Hoggins, et	5,809 Jun-98 Jun-98 Jun-98	1,200 1,200 1,200 1,200	1,200 1,200 1,200 1,200	19,741 19,741 19,741 19,741	2,467 2,467 2,467 2,467	480 480 480 480	480 480 480 480	480 480 480 480	480 480 480 480	2,967 2,967 2,967 2,967	2,967 2,967 2,967 2,967	2,967 2,967 2,967 2,967	2,967 2,967 2,967 2,967	2,967 2,967 2,967 2,967	0 0 0 0	
Project Total:					\$623,063	\$95,301	\$527,762	\$18,191	\$19,501	\$24,993	\$77,192	\$89,877	\$117,012	\$109,470	\$85,856	\$48,232	\$57,315
DAM CONTROL VALVE REPLACEMENT																	
50732 5037 Const. Wachusett	Wash	Dec-93 Dec-97	\$1,072 \$1,072	\$1,072 \$1,072	0 0	798 798	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	\$0 \$0	
50733 6047 Const. Sud. Reserv.	TBS																0 0
Project Total:																	0 0

**WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
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(\$000)**

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002	
							1997	1997	1998	1998	1998	1999	1999	1999	1999		
SLUICE GATE REHABILITATION																	
59757 5255 Design/CSIRI	SEA	Aug-98	Jul-93	\$178	\$178	\$0					0	0				\$0	
59758 5256 Construction 1	Walsh Const	Apr-91	Jul-93	1,529	1,529	0					0	0				0	
60034 6272 Design/CSIRI 2	TBS	Sep-98	Sep-2002	522	522					10	10	123	123	133	133	0	
59760 5258 Construction 2	TBS	Jul-2001	3,526	0	3,526					0	0	1,763	1,763	1,763	1,763	0	
59761 5259 Const. -Stop Planks	Precise Fab	Jun-98	444	444	0					0	0					0	
60027 6158 Con. Sudbury Toe Drain Rep	Rep MDC	Sep-96	1,400	0												0	
Project Total:				\$7,599	\$3,551	\$4,048	\$0	\$0	\$0	\$10	\$10	\$123	\$123	\$1,896	\$1,896	\$0	
METROPOLITAN TUNNEL LOOP																	
60035 6273 Feasibility Study	TBS	Jun-2001	Dec-2002	\$222	\$0	\$222					\$0				\$12	\$140	\$70
Project Total:				\$222	\$0	\$222									\$0	\$12	\$140
CHICOOPEE VALLEY AQUEDUCT INTERCONNECTIONS																	
60036 6274 Design/CAIRI	TBS	Jul-2000	Nov-2004	\$970	\$0	\$970					90	90	\$0	\$231	\$231	\$508	
60037 6275 Construction	TBS	Apr-2003	Nov-2004	3,180	0	3,180				0	0					3,180	
Project Total:				\$4,150	\$0	\$4,150	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$231	\$231	\$1,698	
WINSOR DAM HYDROELECTRIC																	
60032 6276 Preliminary Permit Studies	TBS	May-97	Sep-98	\$42	\$0	\$42	\$5	\$13	\$13	\$11	\$42	\$0	\$0	\$0	\$0	\$0	
60033 6277 Licensing & Detail Design	TBS	Oct-98		43	0	43				0	30	13				0	
Project Total:				\$85	\$0	\$85	\$5	\$13	\$13	\$11	\$42	\$0	\$13	\$0	\$0	\$0	

**WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007**
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WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
 (\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thr. FY97	Remaining Balance 6/30/97	JUL-SEP OCT-DEC JAN-MAR APR-JUN			FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
							1997	1997	1998						
VALUE REPLACEMENT															
Contractor Work:															
67559 5126 Construction 1	Umbro & Sons	Nov-95	Nov-96	\$717	\$717	\$0									
68012 6105 Construction Phase 2	TBS	Oct-97	May-99	1,651	0	1,651									\$0
68039 6278 Construction Phase 3	TBS	Oct-99	May-2001	1,699	0	1,699									0
68079 6345 Construction Phase 4	TBS	Oct-2001	May-2003	1,699	0	1,699									0
68080 6346 Construction Phase 5	TBS	Oct-2003	May-2005	1,699	0	1,699									934
In-House Work:															
68018 6111 Equip Purchase FY97-06	Various	Jul-96	Jun-96	4,132	395	113	113	113	113	452	460	460	460	460	1,699
Deleted	Deleted	Oct-95	Jun-95	17	17	0	0	0	0	0	0	0	0	0	0
Various	Various	Oct-95	Jun-2006	0	0	0	0	0	0	0	0	0	0	0	0
67360 5124 Technical Assistance		Jun-2006		\$12,026	\$1,146	\$10,880	\$113	\$360	\$361	\$1,195	\$1,368	\$1,225	\$1,394	\$1,225	\$4,473
Project Total:															0
CATHODIC PROTECTION OF DISTRIBUTION MAINS															
68002 6058 Planning Phase 1	Contract Employee	Apr-95	Jun-98	\$157	\$109	\$48	\$12	\$12	\$12	\$48	\$0				
68013 6106 Planning Phase 2	TBS	Jul-99	Jun-2001	64	0	64				0					
Project Total:					\$221	\$109	\$112	\$12	\$12	\$48	\$0	\$32	\$32	\$0	0

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-SEP 1997			OCT-DEC 1997			JAN-MAR 1998			APR-JUN 1998			FY98			FY99			FY2000			FY2001			FY2002		
							1997	1997	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998		
BOSTON LOW SERVICE PIPE AND VALVE REHABILITATION																																	
67570 5120 Study - Pipe	Black & Veatch	Sep-84	Feb-91	\$297	\$297	\$0																											
67571 5122 Design/C's	Black & Veatch	Jul-92	Apr-2007	957	501	456	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18			
67575 5135 Resident Inspection	TBS	Apr-98	Feb-95	2,123	0	2,123																											
67572 5123 PHS 1 Equip Purchase	Various	Feb-95	Feb-95	892	892	0																											
68000 6045 Const Clinton & Boylston St	TBS	May-98	Apr-2007	7,530	0	7,530																											
67998 6044 Const Beacon St	TBS	Apr-2005	Apr-2007	13,919	0	13,919																											
Project Total:				\$25,718	\$1,690	\$24,028	\$18	\$18	\$18	\$18	\$18	\$18	\$18	\$18	\$18	\$18	\$18	\$18	\$18	\$18													

REHABILITATION OF WESTON
AQUEDUCT SUPPLY MAIN
(WASHM) 1 & 2

68027 6142 Design/CA/RI	CDM	Jun-97	May-2008	\$5,397	\$41	\$5,356	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124	\$124		
68041 6279 Construction Contract 1	TBS	Dec-99	Jul-2001	13,576	0	13,576																											
68042 6281 Construction Contract 2	TBS			0	0	0																											
68043 6282 Construction Contract 3	TBS	Sep-2005	May-2008	14,200	0	14,200																											
68044 6283 Easements Contract 1	TBS	Dec-98	Nov-99	57	0	57																											
68045 6284 Easements Contract 2	TBS	Sep-2004	Aug-2005	62	0	62																											
Project Total:				\$33,392	\$41	\$33,251	\$124																										

NONANTUM ROAD PIPE
REHABILITATION

67569 5208 Construction	P. Caliaco Corp	Mar-96	May-97	\$1,963	\$1,963	\$0																										
68029 6149 Equipment Purchase	Various	Jan-91	Dec-92	\$157	0	0																										
67390 5879 Technical Assistance	Various	Jan-91	Mar-97	16	16	0																										
Project Total:				\$2,136	\$2,136	\$0																										

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
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(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru: FY97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
				(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
WARREN COTTAGE LINE REHABILITATION																
68081 6285 Construction	TBS	Oct-2000	\$1,583	\$0	\$1,583	\$0	0	0	0	0	\$0	\$0	\$0	\$1,088	\$495	\$0
68082 6286 Easements	TBS	Sep-2000	13	0	13	0	0	0	0	0	0	0	0	0	0	0
Project Total:			\$1,596	\$0	\$1,596	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7	\$1,094	\$495
SOUTHERN SERVICE IMPROVEMENTS																
67612 5119 Des/C/I - H.P. Ave.	Black & Veatch	Jul-91	Aug-2000	\$1,282	\$341	\$941	\$41	\$41	\$41	\$41	\$164	\$303	\$403	\$71	\$0	\$0
67602 5125 Design HP Ave - Yd Pipe	Whitmark&Roward	Apr-82	Oct-83	81	81	0	0	0	0	0	0	0	0	0	0	0
Deleted	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0
67806 5190 C1 - HP Yard Piping	TBS	Aug-2000	3,891	0	3,891	0	0	0	0	0	0	1,287	2,223	371	0	0
68024 6138 Con+HP Pipeline	TBS	Jul-98	Nov-98	29	0	29	0	0	0	0	0	0	0	0	0	0
68046 6287 Eastland HP Pipeline	TBS	Oct-96	Nov-96	10	0	10	0	0	0	0	0	0	0	0	0	0
68034 6195 HP Permit/Road	City of Boston	Feb-88	Oct-97	923	0	923	0	0	0	0	0	0	0	0	0	0
67604 5187 Des/C/I - Newt PS	Fay Stoltz Thom	May-90	Jul-91	190	0	190	0	0	0	0	0	0	0	0	0	0
67607 5195 Const. Newt PS +Ph 1	WES Const.	May-95	Oct-97	2,860	2,697	163	119	44	0	0	0	0	0	0	0	0
67608 5101 Const. Newt PS +Ph 2	Barietta Eng Corp	Jul-88	Jun-93	709	709	0	0	0	0	0	0	0	0	0	0	0
67605 5189 Des/C/I - \$4,95,96	Black & Veatch	Oct-91	Jun-93	2,025	0	0	0	0	0	0	0	0	0	0	0	0
67611 5205 Const. - Sec. 96	Zenone Inc	May-91	Mar-92	1,569	1,569	0	0	0	0	0	0	0	0	0	0	0
67609 5198 Const. - Sec. 94	Methuen Const.			456	456	0	0	0	0	0	0	0	0	0	0	0
67615 5121 Boston Paving	City of Boston	Jul-90	Aug-2000	31	31	0	0	0	0	0	0	0	0	0	0	0
67613 5081 Technical Assistance	Various			\$14,056	\$9,032	\$5,024	\$160	\$85	\$41	\$41	\$27	\$2,626	\$442	\$0	\$0	\$0
Project Total:																

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
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PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thr. FY97	Remaining Balance 6/30/97	JUL-SEP 1997			OCT-DEC 1997			JAN-MAR 1998			APR-JUN 1998			FY98			FY99			FY2000			FY2001			FY2002			
							1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997		
HEATH HILL RD. PIPE REPLACEMENT																																		
67639 5192 Des/CSIR- Sec. 52 Phs 1	Black & Veatch	May-89	Apr-92	\$209	\$209	\$0																												
68047 6288 Des/CSIR- Sec. 52 Phs 2	TBS	Mar-89	Sep-2003	1,367	0	1,367																												
68047 6288 Des/CSIR- Sec. 52 New	Albanese Brothers	Apr-96	Feb-98	807	632	175	66	66	43																									
67842 5194 Const. - Sect. 52 Rehab	TBS	Sep-2001	Sep-2003	6,443	0	6,443																												
67840 5206 Des/CSIR- Sec 56.20, 19	Weston Sampson	Jan-91	Jun-99	1,170	685	505	63	63	63																									
67840 5206 Des/CSIR- Sec 56.20, 19	TBS	Jun-97	Sep-2003	6,244	250	5,984	784	784	645																									
67844 5985 Technical Assistance	Various	May-89	Jan-95	14	14	0																												
68008 6100 Legal/Easements New	Various	Jan-95	Dec-95	16	16	0																												
68048 6288 Legal/Easements Rehab	TBS	Sep-2000	Aug-2001	27	0	27																												
Project Total:				\$16,391	\$17,86	\$14,511	\$913	\$913	\$751																									
SOUTHERN SPINE DISTRIBUTION MAINS																																		
Phase Sec 21, 43, & 22:																																		
68083 6290 Design/CSIR	TBS	Jun-2000	Nov-2005	4,082	\$0	\$4,082																												
68084 6291 Easements	TBS	Mar-2002	Feb-2003	118	0	118																												
68085 6292 Construction	TBS	Mar-2003	Nov-2005	19,066	0	19,066																												
Phase Sec 19:																																		
68086 6293 Design/CSIR	TBS	Jun-2003	Nov-2007	\$1,279	0	1,279																												
68087 6294 Easements	TBS	Mar-2005	Feb-2006	29	0	29																												
68088 6295 Construction	TBS	Mar-2006	Nov-2007	6,031	0	6,031																												
Phase Sec 20 & 58:																																		
68089 6296 Design/CSIR	TBS	Jun-2005	Nov-2009	1,317	0	1,317																												
68090 6297 Easements	TBS	Mar-2007	Feb-2008	45	0	45																												
68091 6298 Construction	TBS	Mar-2008	Nov-2009	6,206	0	6,206																												
Project Total:				\$36,173	\$0	\$38,173	\$0	\$0	\$0																									

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
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 (\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thr. FY97	Remaining Balance 6/30/97	Remaining Balance			FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
							JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN					
SOUTHERN EXTRA HIGH															
SECTION 41, 42, & 74															
68014 6107 Design/GARI	SEA	Apr-97	Feb-2002	\$1,591	\$52	\$1,539	\$52	\$52	\$52	\$208	\$209	\$491	\$422	\$0	
68049 6289 Easements	TBS	Nov-99	Oct-2000	70	0	70	0	0	0	0	0	46	24	0	
68050 6300 Construction	TBS	Nov-2000	Feb-2002	6,697	0	6,697				0	0	3,348	3,349	0	
Project Total:				\$8,388	\$52	\$8,306	\$52	\$52	\$52	\$208	\$209	\$255	\$3,883	\$3,771	\$0
CHESTNUT HILL															
CONNECTING MAINS															
68026 6141 Rooting Study	TBS	Oct-98	Jul-2000	\$476	\$0	\$476				\$0	\$194	\$260	\$22	\$0	
68051 6301 Design/GARI	TBS	Dec-2001	Dec-2007	1,484	0	1,484				0	0	0	0	0	
68052 6302 Construction	TBS	Jun-2006	Dec-2007	7,042	0	7,042				0	0	0	0	0	
68053 6303 Easements	TBS	Jun-2005	May-2006	39	0	39				0	0	0	0	0	
Project Total:				\$9,041	\$0	\$9,041	\$0	\$0	\$0	\$0	\$194	\$260	\$22	\$0	\$0
NEWTON SERVICE															
IMPROVEMENTS															
68015 6108 Construction Sec 95 & 100	TBS	Sep-98	Sep-98	\$7,625	\$0	\$7,625	\$31	\$31	\$985	\$995	\$3,978	\$331	\$0	\$0	
68016 6109 Easement Sec 95 & 100	TBS	Sep-96	Aug-97	67	34	33	33								
67910 5164 Technical Assistance	TBS	Oct-93	Sep-99	20	20	0	0								
68009 6101 Tree Replacement	City of Brookline	Oct-95	Dec-95	7	0	0	0								
Project Total:				\$7,719	\$61	\$7,658	\$364	\$995	\$995	\$3,349	\$3,978	\$331	\$0	\$0	\$0

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
 (\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Projected Payments	Remaining Balance		JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	1998	1999	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
					Total Contract Amount	Thru FY97												
COMMONWEALTH AVENUE PUMP STATION MODERNIZATION																		
67849 5079 Pm/Design	Fay,Spcl,Thor	Feb-88	Aug-89	\$118	\$118	\$0	67	67	67	67	\$0	268	68	\$0	0	0	0	0
67852 5084 Fl/Design/CSIR	Black & Veatch	May-92	Oct-99	1,622	1,017	605	0	0	0	0	0	269	0	0	0	0	0	0
67850 5080 Fl/Design/CSIR	WES Const.	May-90	Jul-91	63	63	0	5,088	0	680	511	661	1,882	2,442	814	0	0	0	0
67851 6132 Constr. - Ph 1	TBS	Oct-97	Oct-99	5,088	2	0	0	0	0	0	0	0	0	0	0	0	0	0
67852 6132 Constr. - Ph 2	Various	Jun-97	Apr-96	19	19	0	0	0	0	0	0	0	0	0	0	0	0	0
68022 6127 PC Abatement	Various	Sep-96	Jun-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67983 6623 Land	DEP	Apr-95	Jun-98	3	1	2	0	0	1	1	1	0	0	0	0	0	0	0
67985 6025 DEP Fees	Various	Dec-96	Jul-94	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0
67979 6604 Technical Assistance	Various	Feb-88	Oct-99	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Total:				\$6,978	\$1,283	\$5,695	\$67	\$727	\$579	\$728	\$2,101	\$2,712	\$882	\$0	\$0	\$0	\$0	\$0
LEXINGTON STREET PUMP STATION REHABILITATION																		
67677 5081 Design/CSIR	Fay,Spcl,Thor	Feb-88	Oct-97	\$138	\$566	\$172	\$141	\$31	0	0	0	0	0	0	0	0	0	0
67678 5082 Constr. - Ph 1	WES Const.	May-90	Jul-91	166	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67680 5083 Constr. - MDPW	Mass DWV	Jul-90	332	332	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67679 5127 Constr. - Ph 2	Barileta Eng Corp	May-95	Oct-97	2,208	1,984	225	167	58	0	0	0	225	0	0	0	0	0	0
67984 6024 Land	Various	Jul-94	Sep-95	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Total:				\$3,451	\$3,054	\$397	\$308	\$89	\$0	\$0	\$0	\$397	\$0	\$0	\$0	\$0	\$0	\$0
REHABILITATION OF OTHER PUMPING STATIONS																		
67885 5153 Preliminary design	Fay,Spcl,Thor	Aug-94	Mar-96	\$401	\$401	\$0	0	0	0	0	0	0	0	0	0	0	0	0
68017 6110 Design/CSIR	Black & Veatch	May-97	Nov-2004	3,967	81	3,886	123	123	123	123	492	533	544	475	668	1,174	0	0
68072 6304 Con Balterm & Interim Automation	TBS	Apr-99	Jan-2000	1,020	0	1,020	0	0	0	0	0	306	714	0	0	0	0	0
68102 6375 Con Battie & Hyde Park	TBS	Nov-2000	Nov-2002	4,019	0	4,019	0	0	0	0	0	0	0	0	0	1,929	1,286	0
68103 6376 Con Battie Court & Res R	TBS	Nov-2001	Nov-2003	2,758	0	2,758	0	0	0	0	0	0	0	0	0	551	2,207	1,562
68104 6377 Con Spring St. & Some Hyd	TBS	Nov-2002	Nov-2004	1,562	0	1,562	0	0	0	0	0	0	0	0	0	0	0	0
Project Total:				\$13,227	\$482	\$123	\$123	\$123	\$123	\$123	\$492	\$839	\$1,258	\$1,279	\$1,148	\$6,229	\$0	\$0

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thr. FY97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
BEAR HILL IMPROVEMENTS -																
SECTION 2B REHABILITATION	TBS	Mar-2006	Nov-2006	\$14,458	\$0	\$1,458					\$0	\$0				\$4,458
68092 6305 Construction	TBS	Mar-2005	Feb-2006	14	0	14					0	0				14
68093 6306 Easements	TBS			\$1,472	\$0	\$1,472					\$0	\$0				\$1,472
Project Total:																
SPOT POND PUMP STATION																
REHABILITATION	Gen Electric	Aug-86	Aug-86	\$70	\$70	\$0					\$0	\$0				\$0
67702 5076 Electrical Upgrade	Richardson	May-84	Sep-87	200	200	0					0	0				0
67708 5074 Const. - Diesel Ex.	P.J. Kennedy	Apr-88	Dec-88	60	60	0					0	0				0
67703 5077 Design/CSIR - P.S.	Fay, Spotl. Thorr	Feb-88	Feb-89	1,811	1,759	52					52	0				0
67707 5078 Const. - P.S. - Ph 1	WES Const.	May-90	Jul-91	630	630	0					0	0				0
67708 5051 Const. - P.S. - Ph 2	Barletta Eng Corp	May-95	Oct-97	11,591	11,048	543					543	0				0
67708 5240 Spot Pond PS Eng. 29	Wes Construction	Jul-94	Jul-95	273	0						0	0				0
67898 6038 Hydraulic Trmt. Analysis	Beta Engineering	Apr-95	Sep-95	61	61	0					0	0				0
67716 5047 Oil Control Plan	P.R. Johnson	Aug-92	Dec-92	171	171	0					0	0				0
67717 5050 Drain Line Cleaning	H.L. Smith, Inc.	Nov-92	Jan-93	268	0						0	0				0
67704 5072 Des/CsIR-Suct Pipe	Weston Sampson	Jul-90	Apr-98	1,638	1,291	347					347	0				0
67705 5071 Study -Suction Pipe	Weston Sampson	Nov-89	Nov-90	476	476	0					0	0				0
67706 5073 Const.-Suction Pipe	Galisco and Sons	Oct-95	Apr-98	11,557	10,657	900					900	0				0
68054 6307 Tudor Barn	TBS			0	0						0	0				0
68105 6378 Fells Area Paving	TBS	Aug-97	Nov-97	368	0	368					184	184	368	0	0	0
67984 6030 Pavings-Highland Ave	City of Maidens	Oct-94	Nov-94	86	86	0					0	0				0
67720 5219 Const/Rehab Discharge	TBS	Sep-99	Nov-2000	1,530	0	1,530					0	0	895	635		0
67719 5144 Const -Sewer P.S.	Barletta Eng Corp	May-96	May-97	214	214	0					0	0				0
67714 5983 Technical Assistance	Various	May-94	Dec-2000	144	144	0					0	0				0
67718 5053 Env Assess & Rem Plan	Stone & Webster	Oct-94	Aug-98	350	216	134					26	108	0	0		0
68055 6308 Remedial Action Plan	TBS	Oct-98	Jul-99	1,674	0	1,674					0	1,597	167	0		0
68056 6309 Design-SP Const. Office	On-Hold			0	0	0					0	0				0
68057 6310 Constru-SP Const. Office	On-Hold			0	0	0					0	0				0
67891 6027 DEP Review Fees	DEP	Jul-94	Apr-99	10	4	6					0	0	6	0	0	0
Project Total:																
		\$33,192	\$27,628	\$5,554	\$1,034	\$717	\$395	\$172	\$23,18	\$1,539	\$1,062	\$1,035	\$0	\$0	\$0	\$0

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
 (\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-SEP		OCT-DEC		JAN-MAR		APR-JUN		FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
							1997	1997	1997	1997	1998	1998	1998	1998						
NORTHERN LOW SERVICE PIPELINE REPLACEMENT																				
67736 5199 DesCSIR-Medford Phs1	Black & Veatch	Aug-88	May-92	\$221	\$221	\$0														\$0
68019 6112 DesCSIR-Medford Phs2	In-house design	Delete	Delete	0	0	0													0	
67739 5198 Const. -Medford	TBS	Apr-98	Sep-98	600	0	600													0	
68062 6319 Basements-Medford	TBS	Feb-98	Mar-98	1	0	1													0	
Project Total:				\$22	\$221	\$601	\$0	\$0	\$1	\$1	\$300	\$301	\$300	\$0	\$0	\$0	\$0	\$0	\$0	
WATER MAIN RELOCATION IN CHELSEA RIVER																				
68023 6135 Planning/Design/CAIRI	TBS	Aug-97	Aug-2000	\$1,097	\$0	\$1,097	\$38	\$57	\$57	\$57	\$56	\$210	\$210	\$230	\$600	\$57	\$0	\$0	\$0	
68063 6320 Construction	TBS	Oct-99	Aug-2000				0	0												
Project Total:					\$1,097	\$0	\$1,097	\$38	\$57	\$57	\$57	\$58	\$210	\$210	\$230	\$600	\$57	\$0	\$0	
NORTH LOW SERVICE- SECTIONS 8 & 57																				
68094 6321 Section 8:	TBS	Jul-2004	Jun-2005	\$54	\$0	\$54													\$54	
68095 6322 Easements	TBS	Jul-2005	Nov-2006	7,455	0	7,455													7,455	
68096 6323 Construction	TBS	Jul-2002	Jun-2003	18	0	18													18	
68097 6324 Easement 57:	TBS	Jul-2003	Nov-2004	3,654	0	3,654													3,654	
Project Total:					\$11,181	\$0	\$11,181	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,181		

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1988-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru. FY97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002	
NEW CONNECTING MAINS - SHAFT 7 TO WASM 3																	
67992 6028 Construction 1-Watertown	City of Watertown	Jul-96	Sep-96	\$167	\$167	\$0											\$0
67846 5163 Routing Study	Weston & Sampson	Aug-94	Nov-96	408	408	0											0
68110 6383 Construction CP1	TBS	Jul-98	Dec-2005	4,283	0	4,283											2,307
68118 6391 Construction CP1	TBS	Aug-2002	21-119	0	21,419	0											2,419
68114 6387 Elements CP1	TBS	Jul-2002	109	0	109	0										100	
68111 6384 Design/CA/RI CP2	TBS	Dec-2001	Feb-2008	815	0	815										57	
68119 6392 Construction CP2	TBS	Nov-2005	Feb-2008	4,071	0	4,071										758	
68115 6388 Elements CP2	TBS	Nov-2004	Oct-2005	52	0	52										4,071	
68112 6385 Design/CA/RI CP3	TBS	Jun-2002	Jan-2011	2,141	0	2,141										52	
68120 6393 Construction CP3	TBS	Mar-2008	Jan-2011	10,710	0	10,710										2,127	
68116 6389 Elements CP3	TBS	Mar-2007	Feb-2008	60	0	60										10,710	
68113 6386 Design/CA/RI CP4	TBS	Jun-2005	Mar-2012	938	0	938										60	
68121 6394 Construction CP4	TBS	Dec-2010	Mar-2012	4,891	0	4,891										938	
68117 6390 Elements CP4	TBS	Dec-2009	Nov-2010	38	0	38										4,891	
68028 6143 Design/CA/RI 2	TBS			0	0	0										38	
68064 6325 Construction 2	TBS			0	0	0										0	
68065 6326 Elements 2	TBS			0	0	0										0	
68066 6327 Constr Intermediate High	TBS			0	0	0										0	
68067 6328 Elements Intmndt High	TBS			0	0	0										0	
Project Total:				\$49,902	\$575	\$49,327	\$0	\$0	\$0	\$0	\$494	\$494	\$494	\$494	\$494	\$47,180	

**NORTHERN HIGH SERVICE -
REPLACE SECTION 26**

Deleted	Deleted																
Deleted	Deleted																
Deleted	Deleted																
Deleted	Deleted																
Project Total:																	

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
 (\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-DEC		OCT-DEC		JAN-MAR		APR-JUN					
							1997	1998	1997	1998	1998	1999	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
NORTHERN HIGH SERVICE-CONNECTING MAINS FROM SECTION 91																		
67830 5165 Design/CA/I	SEA	Jun-95	Oct-2002	\$1,104	\$371	\$733	\$34	\$34	\$34	\$34	\$136	\$137	\$137	\$137	\$137	\$137	\$49	
68076 5331 Easements	TBS	Feb-99	Jan-2000	42	0	42	0	0	0	0	17	459	1,103	1,103	1,103	1,103	0	0
68077 6332 Construction	TBS	Feb-2000	Oct-2002	3,033	0	3,033											368	
Project Total:				\$4,179	\$371	\$3,808	\$34	\$34	\$34	\$34	\$136	\$154	\$621	\$1,240	\$1,240	\$1,240	\$1,240	\$417

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-DEC		OCT-DEC		JAN-MAR		APR-JUN				
							1997	1998	1997	1998	1998	1999	FY98	FY99	FY2000	FY2001	FY2002
NORTHERN HIGH SERVICE-PIPE IMPROVEMENTS - LYNN PIPELINE																	
67752 5113 Design 2 / CSIRI	LEA	Apr-88	Nov-98	\$1,239	\$1,239	\$0	14	14	15	15	\$0	34	\$0	\$0	\$0	\$0	\$0
67753 5114 Des/CSIR/Haz. Mat.	GHR	Aug-88	Nov-98	399	397	92	0	0	0	0	0	0	0	0	0	0	0
67754 5115 Construction 2	J. Biotti	Jun-82	Aug-88	3,804	3,804	0	2,600	0	2,600	216	650	1,516	1,984	0	0	0	0
67755 5117 Construction 3	TBS	Dec-97	Nov-98	2,600	2,600	0	0	0	0	0	0	0	0	0	0	0	0
67756 5118 Construction 4	J. D'Amico	Dec-89	Apr-91	1,746	1,746	0	0	0	0	0	0	0	0	0	0	0	0
67758 5111 Gas Main-Wash. St.	Boston Gas	Apr-88	Oct-89	98	98	0	0	0	0	0	0	0	0	0	0	0	0
67759 5112 Trat Sys-Wash. St.	City of Lynn	Apr-88	Oct-89	15	15	0	0	0	0	0	0	0	0	0	0	0	0
67757 5118 Construction 5	Gibiose & Sons	Jul-91	Jul-91	4,384	4,384	0	0	0	0	0	0	0	0	0	0	0	0
68037 6221 Permits	Various	Jan-97	Mar-97	2	2	0	0	0	0	0	0	0	0	0	0	0	0
67760 5985 Technical Assistance	Various	Jun-82	Jul-98	170	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Total:				\$14,457	\$11,765	\$2,692	\$14	\$230	\$665	\$605	\$1,574	\$1,118	\$0	\$0	\$0	\$0	\$0

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-DEC		OCT-DEC		JAN-MAR		APR-JUN				
							1997	1998	1997	1998	1998	1999	FY98	FY99	FY2000	FY2001	FY2002
NORTHERN HIGH SERVICE-SECTION 27 IMPROVEMENTS																	
67767 5146 Borings - Sect. 27	TBS	Jul-98	Sep-98	\$10	\$0	\$10	0	0	0	0	\$0	\$10	0	0	0	0	\$0
67769 5333 Const. - Sect. 27	TBS	Sep-2000	Nov-2001	2,945	\$0	\$2,955	\$0	\$0	\$0	\$0	\$0	\$0	\$1,963	\$1,963	\$1,963	\$1,963	\$0
Project Total:																	

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$'000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru. FY97	Remaining Balance 6/30/97	JUL-SEP 1997			OCT-DEC 1997			JAN-MAR 1998			APR-JUN 1998			FY98			FY99			FY2000			FY2001			FY2002		
							1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	
NORTHERN HIGH SERVICE REVERE & MALDEN PIPELINE IMPROVEMENTS																																	
67780 5185 Descri/SRI- Revere Bch	Black & Veatch Gioioco & Sons Albanese Bros.	May-88 Sep-94 Aug-92	\$1,668 6,327	\$1,528 6,327	\$140 0	\$140 0																									\$0 0		
67782 5176 Constr. - Malden 53	City of Malden	Apr-92	0,026	10,026	0																										0 0		
68020 6113 Landscape Nat Sec 53	City of Malden	Jun-96	20	0																											0 0		
67784 5175 Const. - Malden	City of Malden	Jun-96	0	0																										0 0			
67792 5238 Constr. - Linden Sqre	Mass. DPW	Apr-91	1,849	1,849	0																									0 0			
67793 5239 C.A. - Linden Sqre	City of Malden	Apr-91	125	125	0																									0 0			
67784 5177 Constr. - Revere 53	TBS	Jun-2000	2,819	0																									226 2,593				
68078 6334 Easements Revere 53	TBS	May-2000	3,5	0																									0 0				
67986 6033 DesCAR/RD Restoration	Greeman Pedersen, In	Nov-94 Dec-95	129	129	0																								5 30				
67987 6034 Construct/RD Restoration	Albanese Brothers	Jun-95	1,714	1,714	0																								0 0				
68013 6183 Sidewalk Restorations	City of Malden	Sep-96	54	54	0																								0 0				
67785 5191 Constr. - C. Valves	DER	Jun-98	949	949	0																								0 0				
67786 5179 Constr - D/Pipe C/L	Spinello	Jun-90	158	158	0																								0 0				
67787 5178 Constr. - Wln. C/L	Spinello	Aug-90	575	575	0																							0 0					
67789 6335 Constr. - 88 & 53A	TBS	Jun-2002	3,890	0																								216 0					
67791 5886 Technical Assistance	Various	May-88	183	183	0																								0 0				
Project Total:				\$30,321	\$23,637	\$6,864	\$140	\$0	\$0	\$140	\$5	\$256	\$2,593	\$216	\$3,674																		

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru. FY97	Remaining Balance 6/30/97	JUL-SEP 1997			OCT-DEC 1997			JAN-MAR 1998			APR-JUN 1998			FY98			FY99			FY2000			FY2001			FY2002			
							1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997			
NORTHERN HIGH SERVICE PIPELINE REHABILITATION																																		
68098 6336 Design/CA/RI	TBS	May-2002	\$2,558	\$0	\$2,558																													
68099 6337 Appraisal/Easement	TBS	Feb-2004	136	0	136																													
68100 6338 Construction	TBS	Feb-2005	12,039	0	12,039																													
Project Total:				\$14,733	\$0	\$14,733	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$138	\$14,595													

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	Remaining Balance			FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
							JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998						
NORTHERN EXTRA HIGH SERVICE NEW PIPELINES															
67970 5242 Design/CARI	Anderson Nichols	Sep-94	Jun-2000	\$746	\$226	\$520	\$19	\$19	\$19	\$76	\$149	\$295			\$0
67971 6339 Appraisal/Easement	TBS	Mar-98	Feb-99	22	0	22	0	0	0	0	22	0			0
67972 6340 Construction - Rehab	TBS	Mar-99	Jun-2000	2,524	0	2,524	0	0	0	0	620	1,904			0
68010 6099 Regulatory Compliance	TBS	N/A	N/A	0	0	0	0	0	0	0	0	0			0
Project Total:				\$3,293	\$227	\$3,066	\$19	\$19	\$19	\$76	\$791	\$2,199	\$0	\$0	\$0
HYDRAULIC MODEL UPDATE															
68101 6342 Hydraulic Model Update	TBS	Jul-98	Jul-2000	\$326	\$0	\$326	\$0	\$0	\$0	\$0	\$157	\$156	\$13	\$0	\$0
Project Total:				\$326	\$0	\$326	\$0	\$0	\$0	\$0	\$157	\$156	\$13	\$0	\$0

SUB TOTAL: DISTRIBUTION AND PUMPING	\$462,970	\$88,029	\$374,941	\$4,372	\$5,576	\$3,308	\$7,303	\$22,559	\$35,318	\$30,011	\$28,393	\$26,625	\$232,034
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WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substantially Complete	Projected Payments		Remaining Balance		FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
				Total Contract Amount	Contract Payments Thru: FY97	6/30/97	1997						
I. OTHER PROGRAMS:													
CENTRAL MONITORING SYSTEM EXPANSION													
75300 5025 Study	O'Brien & Gere	Mar-84	Sep-86	\$190	\$190	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
75301 5028 Design	EMA	Oct-87	Mar-95	2,651	2,651	0	0	0	0	0	0	0	0
75304 5160 Constr. Structures	ESCOA	Nov-92	May-93	161	161	0	0	0	0	0	0	0	0
75305 5173 Constr. Services	SEA	Jul-92	Aug-98	721	521	200	43	43	43	172	28	0	0
75302 5027 Equip.-Purchase	Various	Oct-87	Dec-93	2,161	2,161	0	0	0	0	0	0	0	0
75306 5171 Constr. Bonds/Bills	TBS	Nov-97	Nov-98	209	764	127	127	127	127	508	256	0	0
75303 5028 Res. Road & Const. Meter	Various	Aug-96	Aug-99	3,176	1,866	215	215	215	215	860	861	0	0
75474 6125 Microwave Equipment	Various	Mar-96	Mar-99	780	289	471	67	67	67	268	203	0	0
75308 5849 Operations Center	Mello Construc.	Sep-92	Jun-94	1,489	1,489	0	0	0	0	0	0	0	0
75309 5887 Tech. Assistance	Various	Jul-92	Aug-99	323	0	0	0	0	0	0	0	0	0
75310 5218 Utility Installation	TBS	Aug-96	Aug-99	0	0	0	0	0	0	0	0	0	0
Project Total:				\$12,615	\$9,314	\$3,301	\$452	\$452	\$452	\$1,808	\$1,248	\$0	\$0
REHABILITATION OF EXISTING FACILITIES													
75389 5213 Constr. - Hyde Park	Fidelity International	Jan-93	Oct-93	\$397	\$397	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
75391 5187 Testing -Volume/C	Built-Form	Apr-91	Jan-91	22	22	0	0	0	0	0	0	0	0
75396 5207 Testing - Tracer	In-House	Jan-91	Mar-91	19	19	0	0	0	0	0	0	0	0
75397 5159 Subsurface Inslvng.	Roy F. Weston	Jul-91	Jul-93	562	500	62	7	7	7	28	30	4	0
75392 5168 Constr. - Tank Rem-Ph 1	Franklin Enviro Servi	Aug-92	Feb-94	185	185	0	0	0	0	0	0	0	0
75399 5214 Constr. - Tank Rem-Ph 1	Zenone, Inc.	Feb-95	Jul-95	98	98	0	0	0	0	0	0	0	0
75471 6032 Constr. - Tank Rem-Ph 3	D&C Construction Co	Oct-95	Jul-96	33	33	0	0	0	0	0	0	0	0
75470 6006 Constr. - Tank Remic	TBS	Sep-95	Sep-98	800	0	100	200	200	200	500	300	0	0
75394 5210 Constr. Waltham Pipe	TBS	Feb-2007	Feb-2007	193	0	193	0	0	0	0	0	193	0
75395 5211 Constr. Redford Pipe	E.A. Colangelo	Aug-92	Aug-92	417	417	0	0	0	0	0	0	0	0
75400 5169 Water Tank Inspection	Robert L. Merriew	Oct-94	Nov-94	27	27	0	0	0	0	0	0	0	0
75398 5984 Tech. Assistance	Various	Jul-91	Sep-2007	16	16	0	0	0	0	0	0	0	0
75401 5136 Constr. - Water Tank	TBS	Nov-97	Jan-2000	4,143	0	262	262	262	262	1,124	1,990	1,029	0
75402 5138 Constr. - Stony Brook	D'Allesandro Corp	Feb-95	Jul-96	288	0	0	0	0	0	0	0	0	0
75472 6070 Fac Main Equip Pur FY96	Various	Oct-95	Mar-96	57	57	0	0	0	0	0	0	0	0
75473 6114 Fac Main Equip Pur FY97	Various	Oct-96	Oct-96	250	250	0	0	0	0	1,000	1,000	0	0
75475 6151 Fac. Maintenance Program	Various	Jul-96	Jun-2000	4,000	1,000	3,000	250	250	250	0	0	0	0
Project Total:				\$11,487	\$3,289	\$9,198	\$257	\$819	\$719	\$1,057	\$2,652	\$3,320	\$193

WATERWORKS SYSTEM IMPROVEMENTS PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998-2007
(\$000)

PROJECT	Project Participants	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru FY97	Remaining Balance 6/30/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002	
DISTRIBUTION SYSTEMS FACILITIES MAPPING																	
75458 5162 Planning/Design	CDM	Feb-95	Aug-99	\$948	\$387	\$561	\$85	\$65	\$65	\$65	\$260	\$259	\$42			\$0	
75476 6152 Data Purchase	Boston Edison	Aug-96	Nov-96	100	100	0					\$0					0	
Project Total:				\$1,048	\$487	\$561	\$85	\$65	\$65	\$65	\$260	\$259	\$42	\$0	\$0	\$0	
LOCAL WATER INFRASTRUCTURE REHABILITATION ASSISTANCE PROGRAM																	
75477 6343 Loans and Grants		Jul-97	Jun-99	\$30,000	\$0	\$30,000	\$5,000	\$5,000	\$5,000	\$20,000	\$10,000	\$0	\$0	\$0	\$0	\$0	
75478 6344 Loan Repayment		Jul-98	Jun-2004	(22,500)	0	(22,500)					(3,000)	(4,500)	(4,500)	(4,500)	(4,500)	(6,000)	
Project Total:				\$7,500	\$0	\$7,500	\$5,000	\$5,000	\$5,000	\$20,000	\$7,000	(\$4,500)	(\$4,500)	(\$4,500)	(\$4,500)	(\$6,000)	
SUB TOTAL: OTHER PROGRAMS					\$32,650	\$13,090	\$19,580	\$5,774	\$6,136	\$6,236	\$6,574	\$24,720	\$11,927	(\$2,200)	(\$4,500)	(\$5,807)	
TOTAL WATERWORKS					\$1,750,139	\$239,590	\$1,510,549	\$34,919	\$37,089	\$42,680	\$51,122	\$165,340	\$186,600	\$190,899	\$225,511	\$233,802	\$306,007

BUSINESS AND OPERATIONS SUPPORT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998 - 2007
(\$'000)

J. PROJECT	Project Participant	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru: FY97	Remaining Balance 6/30/97	JUL-SEP 1997			OCT-DEC 1997			JAN-MAR 1998			APR-JUN 1998			FY98	FY99	FY2000	FY2001	FY2002	BEYOND FY2002	
							JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002										
J. BUSINESS SUPPORT																									
NORTH MAINTENANCE FACILITY																									
Chestnut Hill	TBS	Apr-90	Mar-96	\$95	\$495	\$0																			
75438 5847 Design(CSRI)	TBS	delete	0	0	0	0																			\$0
75439 5848 Construction	TBS																								0
Distribution/Maintenance Facility	TBS	Jul-99	Aug-2000	1,325	0	1,325																			
92320 5886 Design(CSRI)	TBS	Mar-99	4,398	3,213	0	4,395																			
92321 5052 Land/Building	TBS	Jul-98	6,627	0	6,627	0																			
92348 6356 Construction	TBS	Jul-2000	6,627	0	6,627	0																			
Mythic Shops	TBS	Sep-2000	Dec-2001	343	0	343																			
92324 6018 Design(CSRI)	TBS	Aug-2001	Oct-2002	1,970	0	1,970																			
92349 6357 Construction	TBS																								
Glenwood Yard	TBS	Sep-2000	Dec-2001	1,497	0	497																			
92325 6019 Design(CSRI)	TBS	Aug-2001	Oct-2002	2,056	0	2,856																			
92350 6358 Construction	TBS			9	0	9																			
92351 6359 Tech Asst	TBS																								0
Project Total:																									
							\$18,320	\$517	\$18,003	\$0	\$0	\$0	\$0	\$0	\$0	\$4,395	\$1,050	\$4,779	\$5,323	\$2,468					

BUSINESS AND OPERATIONS SUPPORT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1988 - 2007
(\$000)

PROJECT	Project Participant	Notice to Proceed	Substant. Complete	Total Contract Amount	Projected Payments Thru: FY97	Remaining Balance 6/30/97	APR-JUN 1998			FY98			FY99			FY2000			FY2001			FY2002						
							JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	FY98	FY99	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
FORE RIVER STAGING AREA																												
92147 5873 Cathodic Protection ✓	TBS	Apr-91	Sep-94	\$59	\$59 ✓	\$0																						\$0
92148 5874 Repair Elevators ✓	TBS	Oct-88	Mar-89	6	6 ✓	0																						0
92149 5877 Rehab Bldgs. 15 & 16	TBS	May-94	May-93	53	53 ✓	0																					0	
92150 5871 Rehab Bldg. 14	Various	Oct-91	Sep-93	164 ✓	164 ✓	0																				0		
92151 5873 FRSA Water Meter Alevine	TBS	Nov-89	Feb-90	14 ✓	14 ✓	0																				0		
92153 5884 FRSA Repair Equip.	TBS	Jan-89	Apr-89	2	2 ✓	0																				0		
92154 5872 Back-Flow Preventers	TBS	Nov-88	Aug-89	10 ✓	10 ✓	0																				0		
92155 5878 PCB Transformer Franklin	TBS	Nov-89	Apr-90	11 ✓	11 ✓	0																				0		
92156 5820 Water Tank Constr.	TBS	Aug-90	Jul-91	49 ✓	49 ✓	0																				0		
92158 5821 Fire Alarms Upgrade	TBS	Sep-89	Sep-94	103 ✓	103 ✓	0																				0		
92161 5864 Geological Storage	Various	Nov-89	Oct-90	23 ✓	23 ✓	0																				0		
92162 5849 Reciffer Install	TBS	Dec-90	Nov-91	9 ✓	9 ✓	0																				0		
92167 5870 Asbestos Removal	N American Site	Jul-95	Nov-95	299 ✓	299 ✓	(0)																				0		
92168 6001 Demolition - 86	TBS	Jul-94	Nov-94	143 ✓	143 ✓	0																				0		
92345 6360 Drydock Pumps	TBS	Jul-96	Jun-97	416 ✓	416 ✓	0																				0		
92344 6178 Geological Shaking	TBS	Nov-96	Nov-97	100 ✓	100 ✓	0																				100		
92346 6361 Demolition	TBS	Dec-93	Sep-94	0 ✓	0 ✓	0																				0		
18556 5859 FRSA Upland Phase II - Ds.	Par/Bifhoff/Qu/Do	Dec-93	Jul-95	670 ✓	670 ✓	0																				0		
18017 5731 FRSA Upland Phase II - Con	Westcott Con	Jul-95	Apr-96	4,220 ✓	4,220 ✓	0																				0		
92342 6173 Inspection Equipment	Cues, Inc.	Jul-96	May-97	313 ✓	183 ✓	130																				0		
23970 5684 Hazardous Waste	PEER	Dec-92	Jan-97	665 ✓	665 ✓	0																				0		
92169 6005 Embankment Improvements	P. Caliacco Corp.	Oct-96	Jun-97	84 ✓	84 ✓	0																				0		
92164 5929 Building 19 Rehab	Thomas O'Conor	Nov-94	Nov-95	2,364 ✓	2,364 ✓	0																				0		
92341 6035 ESDC - Bldg 19	SAR Engineering	Feb-95	Feb-96	40 ✓	40 ✓	0																				0		
92165 5902 Tech Ass't - Bldg 19	various	Nov-94	Feb-95	266 ✓	266 ✓	0																			0			
Project Total:				\$10,083	\$9,853	\$230	\$0	\$100	\$0	\$130	\$230	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			

**BUSINESS AND OPERATIONS SUPPORT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998 - 2007**

BUSINESS AND OPERATIONS SUPPORT PROGRAM
CAPITAL EXPENDITURE FORECAST FY 1998 - 2007

		(\$000)														
		Project Participant	Notice to Proceed	Total Contract Amount	Projected Payments Thru F1997	Remaining Balance 6/20/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY99	FY2000	FY2001	FY2002	Beyond FY2002
BUSINESS SYSTEMS PLAN																
4.1.3.8	Phase I (FY95-97)	Various	Jul-94	\$1,803	\$1,803	\$0					\$0	\$0				\$0
	Phase II (FY97-99)	Various	Jul-96	2,845	222	2,623	340	340	340	340	1,360	800	463			0
90101	5933 Bldg 36 - Aux. Generator	Various	Jun-99	1,000	0	1,000	0	0	0	0	0	0	0	500	500	0
	Project Total:	Brill-Lite Electrica	Oct-94	229	229	0										
	Sub-total: BUS. AND OPER. SUPPORT			\$5,877	\$2,254	\$3,623	\$340	\$340	\$340	\$340	\$1,980	\$800	\$463	\$500	\$500	\$0
				\$38,355	\$12,624	\$25,731	\$667	\$767	\$667	\$797	\$2,498	\$2,493	\$2,772	\$5,279	\$5,823	\$2,466

**CONTINGENCY FUND
EXPENDITURE FORECAST FY 1998 - 2007
(\$000)**

4001. CAPITAL BUDGET CONTINGENCY											Beyond FY2007					
Total Contract Amount	Projected Payments Balance 6/30/97	Remaining Balance 7/1/97	JUL-SEP 1997	OCT-DEC 1997	JAN-MAR 1998	APR-JUN 1998	FY98	FY98	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007
Benton Harbor Project																
FY98	\$22,751	\$0	\$22,751	\$5,688	\$5,688	\$5,688	\$22,751	\$18,112	\$18,112	\$18,112	\$18,112	\$18,112	\$18,112	\$18,112	\$18,112	
FY98	18,112	0	0	8,036	0	0	0	0	0	0	0	0	0	0	0	
FY2000	8,036	0	0	703	0	0	0	0	0	0	0	0	0	0	0	
FY2001	703	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Harbor Contingency	\$46,802	\$0	\$46,802	\$55,886	\$5,886	\$5,886	\$22,751	\$18,112	\$18,112	\$18,112	\$18,112	\$18,112	\$18,112	\$18,112	\$18,112	
BHP Claim Reserve	\$17,851	\$0	\$17,851	\$0	\$0	\$0	\$0	\$17,851	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Other Authority Contingency																
FY98	26,098	0	26,098	6,525	6,525	6,525	26,098	26,841	31,306	31,306	31,306	31,306	31,306	31,306	31,306	
FY98	26,841	0	26,841	0	31,306	0	31,306	0	38,165	0	38,165	0	38,165	0	38,165	0
FY2000	31,306	0	0	39,044	0	39,044	0	29,510	0	29,510	0	29,510	0	29,510	0	
FY2001	38,165	0	0	15,489	0	15,489	0	7,940	0	7,940	0	7,940	0	7,940	0	
FY2002	39,044	0	0	15,489	0	15,489	0	7,940	0	7,940	0	7,940	0	7,940	0	
FY2003	29,510	0	0	6,919	0	6,919	0	6,919	0	6,919	0	6,919	0	6,919	0	
FY2004	15,489	0	0	4,958	0	4,958	0	4,958	0	4,958	0	4,958	0	4,958	0	
FY2005	6,919	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY2006	6,919	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY2007	4,958	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Other Contingency	\$225,812	\$0	\$225,812	\$8,625	\$8,625	\$8,625	\$26,098	\$26,098	\$31,306	\$31,306	\$31,306	\$31,306	\$31,306	\$31,306	\$31,306	
Total Authority Contingency	\$283,365	\$0	\$283,365	\$12,213	\$12,213	\$12,213	\$32,944	\$32,944	\$38,888	\$38,888	\$39,044	\$28,510	\$18,112	\$18,112	\$18,112	



